In this talk I discuss the organization of spatial representation in the ethnic worldview characteristic of a minority community of central Alaska: Upper Kuskokwim Athabaskan (UKA). The UKA language is spoken only by a couple of dozen of older people and rapidly approaches extinction. Spatial representation, extremely important for the traditionally nomadic UKA speakers, is revealed through the intricate and complex system of directional adverbs. In this talk I concentrate on one subclass of directional adverbs – those that can be called dimensional directionals.

**Dimensional directionals** (henceforth: DDs) in northern Athabaskan languages, including UKA, designate locations and directions of movement with respect to certain spatial dimensions that organize the universe of language users. DDs are extremely frequent in natural UKA discourse and are nearly obligatory in clauses describing location or movement. Analysis, elicitation and understanding DDs is only possible in the natural environment of language use, in which semantic dimensions naturally align with the surrounding landmarks, such as rivers and mountains. DDs are typically accompanied by pointing gestures by language users. In this sense the study of DDs presents a special case in linguistic fieldwork, imposing constraints on methods of data collection. Evidence for this talk has been collected during the 2009 field season in the village of Nikolai, Alaska. This evidence consists of an analysis of natural discourse and of a bulk of elicited examples, paired with detailed comments on relevant parameters of the surrounding space.

Semantically, DDs are defined with respect to two dimensions: upriver vs. downriver and uphill vs. downhill. The schematic representation below demonstrates the UKA ecumene with the major landmarks: the Kuskokwim river flowing from NE to SW, the Alaska range, oriented roughly in a parallel direction, and the major UKA villages.

**Riverine orientation: Upriver vs. downriver**
The concepts ‘upriver’ and ‘downriver’ are conveyed by the directional roots –*n-* and –*d-* , respectively. Directional words are based on these roots and contain certain prefixes and suffixes. Examples:

1. **y-o-n-a**³ zido  ‘He lives upriver’*  
   PREF-PREF-upriver-ID  he.lives
2. **n-o-d-o-ts’** tekash  ‘Come this way (by boat, from downriver)’  
   PREF-PREF-downriver-ID-EL  you.paddle

In particular uses, the concepts ‘upriver’ and ‘downriver’ can render both the general direction in which the Kuskokwim river flows and, at a local scale (the river is very windy) relative position along the stream.

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Elevational orientation: Uphill vs. downhill

These two concepts are conveyed by the directional roots –n(w)g- and -ts-, respectively. Examples:

(3) n-o-ts-in  tighisyot  ‘I will go downhill’
    PREF-PREF-downhill-ID  I.will.go

(4) minh  y-o-ng-w-t  lake
    ‘The lake is up there’

The concepts ‘uphill’ and ‘downhill’ can apply to areas of different scale. At a grand scale, they are based on the Alaska Range mountains as the landmark. In accordance with the relative locations of the UKA area and the Alaska Range, the ‘uphill’ and the ‘downhill’ DDs are used as designations of the SE and the NW directions. In contrast, at a local scale, the elevational DDs are based on the surface of the river as the landmark and thus mean ‘away from the river’ and ‘at/towards the river’, respectively.

Morphology

Formally, DDs can be described as template-based words comprising at least six linear positions. The template is shown in the table below.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Referential</td>
<td>Prefix</td>
<td>Prefix</td>
<td>Root</td>
<td>Idiosyncratic suffix</td>
<td>Localization</td>
</tr>
<tr>
<td>hw</td>
<td>y (default)</td>
<td>o (default)</td>
<td>d (downriver)</td>
<td>o’</td>
<td>w(gh) (regional)</td>
</tr>
<tr>
<td>(areal)</td>
<td>n (default)</td>
<td>ts (downhill)</td>
<td>n(w)g (uphill)</td>
<td>a’</td>
<td>(e)t (punctual)</td>
</tr>
<tr>
<td>ghw (diminutive)</td>
<td>d (relative)</td>
<td>(e)ts’(e)</td>
<td>in</td>
<td>(e)ts’(e2)</td>
<td>(elative)</td>
</tr>
</tbody>
</table>

The above cited examples all include the most neutral prefixes, that come with the given DD-roots as automatic defaults: y-o- and n-o-. Other possibilities are illustrated below.

(5) MEDFRA  hw-d-o-ts-in  k’o’isdiyo  ‘He went to Medfra’
    Medfra  AR-REL-PREF-downhill-ID  he.went

(6) sichila  sungha  ghw-ts-et  zido
    my.younger.brother  my.older.brother  DIM-downhill-PUNCT  he.lives
    ‘My younger brother lives a little below my older brother’

Examples (1)–(4) above all contain position E idiosyncratic suffixes coming as defaults with the DD-roots. These suffixes can remain in the presence of position F localization suffixes, as in examples (2) and (4); in (4) the idiosyncratic suffix appears in a shortened form. In other instances localization suffixes supplant the idiosyncratic suffixes, for example:

(7) n-o-nwh-ts’e2  tighisyot  ‘I will go down (from an elevation)’
    PREF-PREF-uphill-EL  I.will.go

(8) y-o-n-wgh  noghima  ‘It is swimming upriver across the river’
    PREF-PREF-upriver-REG  it.is.swimming.across

Deictic orientation

The use of DDs is inherently oriented to the position of a viewer, or origo. For example, consider the situation in which X is at the river bank, and Y is somewhat away from the river, that is, uphill, and the movement to be described is X’s walking toward Y. If X is the speaker, he could say:

(9) n-o-ng-i  tighisyot  ‘I will go uphill’
    PREF-PREF-uphill-ID  I.will.go

To the contrary, if Y is the speaker, and therefore origo is located uphill, he could say:

(10) y-o-ts-ets’  teyosh  ‘Come here (from downhill)’
    PREF-PREF-downhill-EL  you.go
That is, the selection of a particular DD depends on where the origo is located. If origo itself is moving, the endpoint of movement is encoded in the DD. But if origo is originally at the endpoint, the DD encoding the point of departure is used, in its elative form.

**Semantic conflicts**

As was pointed out above, DDs can be used on the basis of either grand or local scale. In certain situations one an the same vector of movement can be construed as being uphill or downhill, depending on the chosen scale. For example, consider movement from the bank of the Kuskokwim river towards someone’s house in Nikolai (arrow 1 in the figure above). This kind of movement can be described by the following clause:

(11)  y-o-ng-i  sikayih  hi-ts’e?  notighisdo³
    PREF-PREF-uphill-ID  my.house  AR-to  I.will.go

The local scale is used in this case, movement away from the river being conceptualized as going uphill. In contrast, if a bird is flying in exactly the same direction (arrow 2 in the figure above), the grand scale must be employed:

(12)  dotron’  n-o-ts-in  nonot’wh  ‘A raven flies away from the mountains’
    raven  PREF-PREF-downhill-ID  it.flies

**DDs can be superimposed**

Single DDs represent simplex instances of orientation in space. Sometimes such simplex orientations are not sufficient for describing actual locations or movements. Then combinations of two or more DDs can occur in discourse, for example:

(13)  y-o-d-o-t  n-o-ts-e-ts’in  noko³  hinodiditonh
    PREF-PREF-downriver-ID-PUNCT  PREF-PREF-downhill-ID-AD  sandbar  it.lies

‘There is another sandbar downriver on the side away from the mountains (that is, on the northern side)’

**Concluding remarks**

The DDs in UKA present a remarkable variety of forms. They are extremely important in natural discourse and represent a highly ethnographically salient component of discourse semantics. In addition to dimensional directionals, other classes of directionals are amply used in discourse, including those oriented to natural objects (‘towards a body of water’, ‘across a concave’, ‘over a hill’, etc.) and those inherently oriented to the origo’s location as a center (‘right here’, ‘around here’, etc.). It appears that precise specification of locations, directions, and paths constitutes one of the major hallmarks of UKA cognitive representation and discourse.

Ethnographically relevant aspects of semantics and cognitive representation require special methods of field work. In the situation of language decline, the best available consultants must be chosen. The criteria of consultants’ quality include the following: age; personal life experience; gender; general intelligence. In the natural discourse segment of my data, I have been relying on the stories by the oldest living speaker of UKA, Bobby Esai, whose language competence formed still during the largely nomadic period of the UKA history, during the 1920s. When eliciting additional materials, I worked primarily with Nick Alexia, a person of great personal experience in hunting and travelling, and having outstanding intelligence, semantic intuition and ability to provide thoughtful explanations and comments. I also found that women who were traditionally less exposed to the nomadic lifestyle have a more limited command of DDs compared to their male peers.

**ABBREVIATIONS IN GLOSSES**

<table>
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<th>PUNCT</th>
<th>punctual</th>
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<tbody>
<tr>
<td>AR</td>
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<tr>
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<td>diminutive</td>
<td>REL</td>
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