

# Evidentiality

This section covers evidentiality, mirativity, and validational force, as separate concepts that are closely intertwined. Evidentiality in Balti is expressed with clause-final particles, and are generally uninflected for tense or aspect. There is a distinction between the sources of evidence for a statement, and a multi-tiered distinction in validational force.

## 1 Hearsay

In Balti, information that the speaker has experienced first-hand, or has any kind of first-hand knowledge of, is unmarked. In the first example below, the speaker has absolute knowledge that it's raining, from experiencing it himself; perhaps he is outside and feels the rain hitting his skin, or sees it from a window.

(1) namkor            oŋ-en            jot  
rain                come-PROG      COP  
'It's raining.' (first-hand knowledge)

If the speaker gained this knowledge from another person, without witnessing the event himself, he expresses this source of information with the hearsay particle 'lo', which always occurs clause-finally.

(2) namkor            oŋ-en            jot      lo  
Rain                come-PROG      COP      HSY  
'It's raining.' (hearsay)

This particle occurs when the speaker is telling someone else, other than the person he received the information from. In other words, if I told Muhammad that it's raining, and he went to tell someone else that it's raining, he would express it using example 2 above. In this scenario, Muhammad had been in a basement all day with no windows and thus didn't perceive any evidence of rain, and I had first-hand knowledge that it's raining.

This particle is uninflected for tense/aspect, and can be used with any tense. Muhammad perceives there to be some past tense associated with this particle, but I conclude that this is because the speaker obtaining the information from person A occurred prior to him telling person B. The knowledge that he received from person A could be regarding any tense.

(3) namkor            oŋ      mi      in      lo  
Rain                come    FUT    AUX    HSY  
'It will rain.' (hearsay)

context: Muhammad watched the weather forecast on TV that said it will rain tomorrow

(4) namkor            oŋ-s            lo  
rain                come-PST      HSY  
'It rained.' (hearsay)

context: His family in Islamabad told him it had rained.

## 2 Inference

If the speaker did not receive the information from another person and also did not witness it himself, but instead witnessed evidence that leads him to infer that information, the inferential evidential appears. For example, if Muhammad was in a basement with no windows, therefore unable to see the rain himself, but heard light patters of rain drops on the roof, he would express that it's raining using the below example. The inferential marker 'duk tuk' appears clause-finally. 'duk' takes the place of the copula or auxiliary verb.

- (5) Namkor            oŋ-en            duk tuk  
Rain                come-PROG       INFR  
'It's raining.' (inferred)

This marker is also uninflected for tense.

context: Muhammad went outside after being in the basement and saw that the sidewalk was wet.

- (6) Namkor            oŋ            fi            duk tuk  
rain                come    PST       INFR  
'It rained.' (inferred)

context: He saw heavy, gray storm clouds in the sky.

- (7) Namkor            oŋ            mi            duk tuk  
Rain                come    FUT       INFR  
'It will rain.' (inferred)

## 3 Mirativity

Mirativity expresses the surprise, or realization, of the speaker to learn or conclude the information in question. Strictly speaking, it's not part of evidentiality, as evidentiality regards the means with which the speaker received that information. However, they are related concepts. They also have similar grammatical structure; the mirative particle, 'suk', occurs clause-finally, without affecting the rest of the sentence.

- (8) mo            iʃin            tʃoɣo       soŋ-set suk  
She            very            big            go-PST    MIR  
'Wow, she's grown!'

context: One day when walking down the street, Muhammad sees an old friend with his daughter, both of whom he hasn't seen in years. He remarks that she's grown.

Mirativity has something to do with how he received the information, namely that he discovered it suddenly. The mirative marker in Balti appears when the speaker is very surprised, but also more broadly in situations that involve realizing information, without a dramatic surprise. In the following example, Muhammad has been in the basement all day, and felt that it was very cold, but didn't know why. He goes outside and realizes that it snowed.

- (9) k<sup>h</sup>a            oŋ-set            suk  
snow            come-PST       MIR

‘It snowed (I realized).’

Note that this phenomenon is markedly different from inference. Inference means that the speaker observed evidence that leads him to infer that conclusion, rather than realizing it occurred without doubt. Take sentences 9 and 6 as an example; in 9, seeing the snow on the ground leads him to the realization, as opposed to sentence 6, where the wet ground led him to infer that it had rained.

The validational force that both carry is another way to note the distinction. The mirative marker has significantly more validational force than the inferential, as noted by Muhammad himself. This is because when drawing an inference, there is still some uncertainty, as the evidence may be due to something else. Following the prior example, it’s possible someone sprayed a hose to clean the sidewalk, rather than the wetness being due to rain. Therefore, there is some doubt. However, there is no doubt involved when the speaker sees snow on the ground, or realizes that the girl has grown.

(10) merediθ      iʃin    tade    jot    suk  
Meredith      very    happy    COP    MIR  
‘Meredith was very happy (I realized).’

(11) ni      aʃtʃatkae-s                      ʃoʃʃoq    rb-et                      suk  
my      sister-ERG                      letter    write-HAB                      MIR  
‘My sister writes letters.’

#### 4. Aspect/ Syntactic Constraint

There are two ways to express past tense in Balti:

(12) namkor                      oŋ-s  
rain                              come-PST  
‘It rained’

(13) namkor                      oŋ    fi    in  
rain                              come    PST    AUX  
‘It rained’

However, both ‘suk’ and ‘duk tuk’ can only occur in the construction as sentence 13.

(14) # namkor                      oŋ-s                      duk tuk  
rain                              come-PST                      INFR  
‘It rained.’ (inferred)

(15) namkor                      oŋ    fi    duk tuk  
rain                              come    PST    INFR  
‘It rained.’ (inferred)

- (16) \* namkor oŋ-s suk  
rain come-PST MIR  
'It rained (I realized).'
- (17) namkor oŋ fi in suk  
rain come PST AUX MIR  
'It rained (I realized).'

When asked if there was a difference between 12 and 13, Muhammad said sentence 12 is more like 'It had rained', which would be perfect aspect. That would mean the inferential and mirative markers cannot appear in perfect aspect, although it's unclear why.

Alternatively, Peter hypothesizes that 'fi in' and '-s' are both unaspectual past in his paper on relative clauses. This would imply that the reason that sentence 14 is ungrammatical is because there is no auxiliary verb for 'duk' to replace, and is therefore solely due to the structure of the sentence.

Following that hypothesis, it's surprising that 'suk' would have the same restriction, because there is no equivalent of 'duk' here to take the place of the auxiliary verb. 'duk' is a verb on its own, which has various meanings, including 'to live' and 'to sit'. 'suk' does not have this, and doesn't replace the auxiliary verb in the sentence. Therefore it's unclear if this is a syntactic constraint, or if there really is an aspect distinction.

Since 'lo' doesn't seem to have this constraint, maybe there's something in common between 'duk tuk' and 'suk'. They both have the -uk morpheme. '-uk' expresses greater validational force than the inferential. Following the rain scenario, if Muhammad couldn't see outside but he could hear very loud rain pattering, thunder, and wind howling, he would say the following with greater certainty.

- (18) namkor oŋ-uk  
rain come-VER  
'It's raining.'

However, '-uk' doesn't seem to come up in situations requiring evidence, thus I hesitate to count it as part of evidentiality. It seems to be only expressing the veracity of the statement. Additionally, it functions quite differently grammatically than the other markers discussed in this paper - it fuses to the verb, and even varies morpho-phonologically (e.g. 'g-ik', glossed as go-VER). Therefore, it's likely part of modality, whether epistemic or veridical. It's also unclear what it would be fusing to in 'suk' and 'duk tuk'.

## 5 Negation

The hearsay particle doesn't affect the verb at all, it only attaches to the end of the sentence. Therefore, the negation is the same as it would be if 'lo' wasn't present; the negation morpheme 'mə' prefixes to the auxiliary verb, in this case 'jut'.

- (19) namkor oŋ-en met lo  
rain come-PROG COP.NEG HSY  
'It isn't raining.' (hearsay)

Recall that the ‘duk’ in ‘duk tuk’ takes the place of the auxiliary verb. To negate a sentence with ‘duk tuk’, there are two options for the position of the negation morpheme. In 8, ‘mi’ is negating the verb, such that the infinitive is ‘mionma’, meaning ‘to not rain’. In 9, ‘mi’ is negating ‘duk tuk’. This is further evidence that ‘duk’ acts in a verb in some way; it’s not possible to negate ‘lo’ this way.

‘mi’ otherwise occurs in constructing the future tense, where it has nothing to do with negation. In reviewing the data, ‘mi’ seems to only be used for negation in sentences with evidentiality and modality (see necessity and weak necessity in the old grammar).

- (20)      namkor            mi-oŋ-en            duk tuk  
rain                    NEG-come-PROG      INFR  
‘It isn’t raining.’ (inferred)
- (21)      namkor                    oŋ-en            mi      duk tuk  
rain                    come-PROG      NEG      INFR  
‘It isn’t raining.’ (inferred)

## 6 Syntax

None of these markers can appear in a subordinate clause. I tried to elicit ‘The apples that were probably delicious, I had bought at the market,’ inferring from their color and smell. In his translation, he made the clause containing the inferential marker the main one.

- (22)      ŋa-s    market-iŋ-a    len-pi            kufu    zumbo duk tuk  
I-ERG    market-LOC-?    buy-PFV            apple    tasty    INFR  
‘The apple I had bought at the market is probably tasty.’

It seems that it was difficult to elicit such constructions because after the evidentiality or mirativity has been communicated, the marker does not continue to appear in the conversation. New information tends to go in the main clause.

## 7 Cooccurrence

These markers cannot co-occur. I tried on multiple occasions to elicit them together. For example, if I had told him that I hear droplets, but I didn’t directly tell him it’s raining, this situation would involve both hearsay and inference. I have also attempted all combinations of the three markers. On all occasions, he says you could say sentences with the markers separately as in sentences 2 and 5, but never the two together, as in the example below. This may just be a syntactic constraint; there’s only space for one marker to be clause final, and cannot be chained.

- (20)      # namkor            on-en            duk tuk            lo  
rain                    come-PROG      INFR                    HSY  
‘It’s raining’ (inferred from hearsay)