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A note on inferential evidentials in Qaraqalpaq¹

Muyi Yang

1. Introduction

Evidentiality is a cross-linguistically well-attested phenomenon that indicates the presence of evidence supporting the uttered proposition. The way that evidentiality is encoded in grammar varies across language. For example, in English, evidentiality can be expressed by adverbs such as *apparently*, as in (1), and parenthetical constructions, as in (2).

(1) Apparently, John won.

p : John won.

$Evid(p)$: The speaker has indirect evidence that p .

(2) John won, they say.

p : John won.

$Evid(p)$: The speaker has indirect evidence that p .

Henceforth, I will use the term ‘prejacent’ (or simply p) to refer to the proposition within the scope of the evidential marker; e.g. in (1), p is the proposition ‘John won’. I will use the term ‘evidential proposition’ (or $Evid(p)$) to refer to the proposition that the speaker holds evidence that supports p .

Since Willett (1988), it has been well-established that evidentials can be divided into the direct and the indirect type depending on whether the evidence is obtained through a primary or a secondary source. Within indirect evidentials are reportative evidentials, i.e. where $Evid(p)$ encodes verbal report, and inferential evidential, i.e. where $Evid(p)$ provides evidence for the prejacent via an agent’s reasoning.

(3) a. Direct evidence: visual, auditory, other sensory

b. Indirect evidence (e.g. *apparently*, *must*)

- Reportative evidence: Second-hand, third-hand, folklore (e.g. parenthetical *they say*)

- Inferential evidence: Results, reasoning

The goal of this note is to present a paradigm of inferential evidentials in Qaraqalpaq, a Turkic language spoken in Karakalpakstan, Uzbekistan. In formal semantics, one of the main issues regarding evidentials is whether they are modals (e.g. Izvorski 1997, Matthewson et al. 2007) or

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illocutionary operators (e.g. Faller 2002). This note is an attempt to identify the status of inferential evidentials in Qaraqalpaq by applying the standard tests established in the literature.

2. Inferential evidentials in Qaraqalpaq

Qaraqalpaq has three types of indirect evidentials: the non-verbal predicate *ǵıǵar* ‘maybe’, the adverb *mymkǵn* ‘maybe’, and the predicate *oqs* ‘look like’.

- *ǵıǵar* ‘maybe’

The use of the non-verbal predicate *ǵıǵar* ‘maybe’ as a marker of inferential evidentiality is exemplified by (4) below. Note that the embedded verb takes its participle form inflected for *-GAn*.

- (4) *wol alma-nıy ǵe-gen ǵıǵar.*
 3SG apple-ACC eat-PTCP maybe
p: He ate the apple.

Evid(p): The speaker infers that *p* (e.g. apples skins on his desk).

Although *ǵıǵar* consists of the verb *ǵıǵ* ‘exit’ and the possibility future marker *-ar*, its meaning under the evidential use is not compositional. *ǵıǵar* does, however, have a use under its literal meaning ‘might come/go (in the future)’, but this requires the embedded verbs to be inflected differently, viz. in the form of the non-finite *-Ep*. Compare (5) with (4).

- (5) *wol alma ǵe-p ǵıǵ-ar.*
 3SG apple eat-NONF go-MOD
 ‘He might come to eat an apple.’

In addition, *ǵıǵar* can also describe inferences about future states of affairs and events in-progress.

- (6) *ǵauıyǵn ǵau-a-ǵaq ǵıǵar.*
 rain fall-NPST-IMM.FUT maybe
p: It’s going to rain soon.
Evid(p): The speaker has inferential evidence that *p* (e.g. the thunder).
- (7) *apa-m keǵ-ke auqat pǵsar-ǵp atıǵr-ǵan ǵıǵar.*
 grandma-1SG.POSS evening-DAT food cook-NONF PROG-PTCP maybe
p: Grandma is cooking dinner.
Evid(p): The speaker infers *p* (e.g. good smell coming from the kitchen).

- *mymkǵn* ‘maybe’

The second inferential evidential marker is the adverb *mymkǵn* ‘maybe’, as in (9).

- (8) *wol alma-nıy ǵe-ıǵd mymkǵn.*
 3SG apple-ACC eat-INF maybe
p: He will eat the apple.
Evid(p): The speaker infers *p* based on evidence (e.g. he loves apples).

mymkǵn is the only evidential marker that associates with future events by default. However, when it

takes the light verb *bol-* ‘be’, *mymkən* can also express inference about past events. In that case, the infinitival appears as the allomorph *-ūuuq*.

(9) *wol alma-nuq ze-gen bol-ūuuq mymkən.*

3SG apple-ACC eat-PTCP be-INF maybe

p: He has eaten the apple.

Evid(p): The speaker infers *p* (e.g. apple skins in his trash bin).

- ***uqs* ‘look like’**

The last inferential evidential marker is *uqs-ap tor* ‘it looks like’, as exemplified below.

(10) *ajaz.baba kel-gen-ge uqs-ap tor.*

Santa.Claus come-PTCP-DAT look.like-NONF AUX

p: Santa Claus came.

Evid(p): The speaker infers *p* (e.g. there are many presents under the Christmas tree).

3. Epistemic modals or illocutionary force: The standard tests

I adopt the standard tests for evidentials developed in Matthewson et al. (2007) in analyzing the paradigm of inferential evidentials in Qaraqalpaq. In the literature, there are two main approaches to evidentiality. Some evidential expressions have been analyzed as epistemic modals, e.g. Izvorski (1997), Matthewson et al. (2007). Under this approach, both *p* and *Evid(p)* contribute to the meaning of the utterance, although the way their contribution is made depends on the theory. For example, in Izvorski (1997), *p* (or more precisely, *MUST p*) constitutes the assertive content of the utterance, and *Evid(p)* constitutes the presupposition. The other approach analyzes evidential markers as illocutionary operators (Faller 2002). Under this analysis, evidential expressions do not contribute to the truth-condition of the utterance. Rather, they weaken the illocutionary force of the utterance from pure assertion to a mere ‘presentation’ type of speech act. At the same time, they modify the sincerity condition of the utterance (e.g. ‘there is some other speaker who has uttered *p*’ for reportative evidentials). Note that even within one language, it is possible to find both modal-like evidentials and speech-act-like evidentials. See Table 1 for a summary of the tests.

Table 1: Matthewson et al. (2007)’s tests and predictions

	Modal analysis	Illocut. analysis
a. Felicitous if <i>p</i> is known to be false?	no	yes
b. Felicitous if <i>p</i> is known to be true?	no	yes
c. <i>Evid(p)</i> cancelable?	no	no
d. <i>Evid(p)</i> projects over negation?	yes	yes
e. <i>Evid(p)</i> can be picked up? (Originally: Challengeable?)	yes	no
f. Embeddable?	yes	no

Below are examples from English that have been adduced to motivate the modal analysis. I omit examples that illustrate the illocutionary operator analysis, because there are no data from English evidentials that would argue for this approach, to the best of my knowledge. First, an epistemic-like evidential asserts that p is (necessarily or possibly) true. Thus, a speaker who knows p to be false cannot use evidentials felicitously, even if she holds evidence supporting p .

(11) **Test a:** #It might be raining, but it is not. (Faller 2002, p. 191)

If the truth of p is known, utterance of an evidential would violate the Gricean Maxim of quantity, even if the speaker has evidence supporting p .

(12) **Test b:** #It's raining, and it might be raining. (Veltman 1996)

Evid(p) is presuppositional in (at least in some version of) the modal analysis of evidentials, and thus not cancelable.

(13) **Test c:** #It might be raining. Actually, I saw it.

Again, since *Evid(p)* is presuppositional, it should scope over negation.

(14) **Test d:** It might not be raining.

p : It's not raining; *Evid(p)*: The speaker has evidence supporting p .

Not: p : It's raining; *Evid(p)*: The speaker does not have evidence supporting p .

Test e is the most controversial one and has raised many discussions in the literature. One of the reasons is that testing challengeability introduces the complications of using response particles like *yes* and *no* and anaphors like *that* as in *That's right/wrong*, which may behave differently across languages. Because our goal now is to tease apart modal-like evidentials and speech act-like evidentials, I will test whether p and *Evid(p)* can each be accepted or rejected. Since the illocutionary operator analysis suggests that *Evid(p)* only contributes to the sincerity condition of the utterance, it predicts that *Evid(p)* cannot be picked up. Under the modal analysis, picking up *Evid(p)* should be possible.

(15) **Test e:**

a. A: Alfred might be secretly seeing Barbara. (Matthewson et al. 2007 (23))

b. B: Yeah, he is. (= *He is secretly seeing Barbara.*)

B': I agree. (= *I agree that he might be secretly seeing Barbara.*)

Finally, since *Evid(p)* makes semantic contribution to the truth of the proposition, the evidential can be embedded.

(16) **Test f:** If the ball was reportedly over the line, the matter should be investigated further.

Paraphrase: '*If it is reported that the ball was over the line, the matter should be investigated further.*' (Faller 2002)

4. Testing Qaraqalpaq inferentials

- **Test a: When p is known to be false**

When *p* is known to be false, *fuɤar*, *mymkən* cannot be used, while *oqs* is felicitous.

(17) Context: The flowers in the garden of your house are all wet, and you know that it's because your friends have watered them in the morning, and it didn't rain.

a. #*zauuɤn* *zau-ɤan* *fuɤar*.

rain fall-PTCP maybe

'It may have rained (I infer).'

b. #*zauuɤn* *zau-ɤan* *bol-uɤuɤ* *mymkən*.

rain fall-PTCP be-INF maybe

'It might have rained (I infer).'

c. *zauuɤn* *zau-ɤan-ɤa* *oqs-ap* *tor*.

rain fall-PTCP-DAT look.like-NONF PROG

'It looks as if it had rained (I infer).'

• **Test b: When *p* is known to be true**

When *p* is known to be true, none of the markers can be used felicitously.

(18) Context: It started raining while you were taking a walk. You rushed home, grabbed an umbrella and went out again. When you opened the door, it already stopped raining, but the flowers in your garden were all wet.

a. #*zauuɤn* *zau-ɤan* *fuɤar*.

rain fall-PTCP maybe

'It may have rained.'

b. #*zauuɤn* *zau-ɤan* *bol-uɤuɤ* *mymkən*.

rain fall-PTCP be-INF maybe

'It might have rained.'

c. #*zauuɤn* *zau-ɤan-ɤa* *oqs-ap* *tor*.

rain fall-PTCP-DAT look.like-NONF PROG

'It might have rained.'

• **Test c: Cancelability**

Evid(p) is not cancelable in all cases.

(19) #*zauuɤn* *zau-ɤan* *fuɤar*, *rastan* *men* *zauuɤn* *zau-ɤan-uɤm* *kər-də-m*.

rain fall-PTCP maybe actually 1SG rain fall-PTCP-1.POSS see-PST-1SG

'It might have rained, actually I saw it.'

(20) #*zauuɤn* *zau-ɤan* *bol-uɤuɤ* *mymkən*, *rastan* *men* *zauuɤn* *zau-ɤan-uɤm*

rain fall-PTCP be-INF maybe actually 1SG rain fall-PTCP-1.POSS

kər-də-m.

see-PST-1SG

'It might have rained, actually I saw it.'

- (21) #*zauuyn* *zau-kan-ka* *uqs-ap* *tor;* *rastan* *men* *zauuyn*
rain fall-PTCP-DAT look.like-NONF PROG actually 1SG rain
zau-kan-um *kør-də-m*
fall-PTCP-1.POSS see-PST-1SG
‘It looks like it rained, actually I saw it.’

- **Test d: Projection over negation**

For all three markers, *Evid(p)* projects over negation.

(22) Context: We’re living in a rainy season, and it’s been raining every day. Today you have been studying in a room without windows and you have no idea how the weather was like outside. But you saw that everyone walking into the hallway are wearing sunglasses.

- a. *zauuyn* *zau-ma-ka* *fuykar,* *muyna* *adam-lar* *køz-ajnek-ler-ən* *kij-əp*
rain fall-NEG-PTCP maybe this man-PL eye-window-PL-ACC wear-NONF
tor.

PROG

- b. *zauuyn* *zau-ma-kan* *bol-uyuy* *mymkən,* *muyna* *adam-lar* *køz-ajnek-ler-ən*
rain fall-NEG-PTCP be-INF maybe this man-PL eye-window-PL-ACC
kij-əp *tor.*

wear-NONF PROG

- c. *zauuyn* *zau-ma-kan-ka* *uqs-ap* *tor;* *muyna* *adam-lar*
rain fall-NEG-PTCP-DAT look.like-NONF PROG this man-PL
køz-ajnek-ler-ən *kij-əp* *tor.*

eye-window-PL-ACC wear-NONF PROG

‘It might not have rained. These people are wearing sunglasses.’

NOT: ‘I don’t have evidence that it rained.’

Note that this holds even when the negation is a sentential negation scoping over *uqs* ‘look like’ on the surface, as in the following example (it is impossible to form such construction with *fuykar* and *mymkən*, though).

- (23) *zauuyn* *zau-ma-kan-ka* *uqs-ap* *tor-kan* *zoq,* *muyna*
rain fall-NEG-PTCP-DAT look.like-NONF PROG-PTCP NEG.COP this
adam-lar *køz-ajnek-ler-ən* *kij-əp* *tor.*

man-PL eye-window-PL-ACC wear-NONF PROG

‘It’s not the case that it looks like it rained. These people are wearing sunglasses.’

NOT: ‘I don’t have evidence that it rained.’

- **Test e: Picking up by accepting or rejecting responses**

For all three markers, both *p* and *Evid(p)* can be picked up when the utterance is accepted, as in (25) and (26).

(24) Context: Elnara and Horzija are playing a game. Elnara hides marbles of different colors and shapes behind a curtain, and Horzija cannot see the marbles. Elnara gives Horzija some hints, and Horzija guesses what colors and shapes the marbles are. After a few rounds, Horzija starts guessing. Horzija to Elnara...

- a. *perde-nen artuq-nda-kuy quzuyl tas fuykar.*
 curtain-GEN behind-LOC-DAT red rock maybe
- b. *perde-nen artuq-nda-kuy quzuyl tas bol-uuy mymkən.*
 curtain-GEN behind-LOC-DAT red rock be-INF maybe
- c. *perde-nen artuq-nda-kuy quzuyl tas-ka oqs-ap tor.*
 curtain-GEN behind-LOC-DAT red rock-DAT look.like-INF PROG

‘There might be a red marble behind the curtain.’

(25) As a response to (24a), (24b) and (24c):

doruy. wol quzuyl tas.
 right 3SG red rock

‘You’re right, it’s a red marble.’

(26) a. As a response to (24a) and (24b):

doruy. {fuykar / bol-uuy mymkən.}
 right maybe be-INF maybe

‘You’re right, there might be.’

b. As a response to (24c):

doruy-qa oqs-ap tor.
 right-DAT look.like-NONF PROG

‘It seems correct.’

When the utterance is challenged, *p* can be easily picked up, as in (27). Challenging *Evid(p)*, however, is judged to be infelicitous, as in (28). For the sake of identifying the modal or the illocutionary operator status of Qaraqalpaq inferential evidentials, I think it is sufficient to know that *Evid(p)* can be picked up when the utterance is accepted. In the future, I will try to explore whether the infelicity of (28) is caused by any confounds, such as whether the response particle *qate* ‘wrong’ is problematic in this context.

(27) As a response to (24a), (24b) and (24c):

qate, wol quzuyl tas je-me-s.
 wrong 3SG red marble AUX-NEG-?
 ‘You’re wrong, it’s not a red marble.’

(28) # As a response to (24a), (24b) and (24c):

qate, wol quzuyl tas zoq {fuykar / mymkən / -qa oqs-ap tor.}
 wrong 3SG red marble NEG.COP maybe maybe -DAT look.like-NONF PROG

‘You’re wrong, it might not be a red marble.’

- **Test f: Embeddability**

Finally, *Evid(p)* can be embedded under *say* in all cases.

(29) a. *Muyi ajt-ıyp atıyr zauıyn zau-kan ƒıƒkar dep.*

Muyi say-NONF PROG rain fall-PTCP maybe C

b. *Muyi ajt-ıyp atıyr zauıyn zau-kan bol-ıııı mymkən dep.*

Muyi say-NONF PROG rain fall-PTCP be-IN maybe C

c. *Muyi ajt-ıyp atıyr zauıyn zau-kan-ka ıqs-ap tor dep.*

Muyi say-NONF PROG rain fall-PTCP-DAT look.like-NONF PROG C

‘Muyi is saying that it might have rained (she has indirect evidence).’

The result is summarized in Table 2 below.

Table 2: Results of Matthewson et al. (2007)’s tests on Qaraqalpaq inferentials

	Modal analysis	Illoc. analysis	<i>ƒıƒkar</i>	<i>mymkən</i>	<i>ıqs</i>
Felicitous if <i>p</i> is known to be false?	no	yes	no	no	yes
Felicitous if <i>p</i> is known to be true?	no	yes	no	no	no
<i>Evid(p)</i> cancelable?	no	no	no	no	no
<i>Evid(p)</i> projects over negation?	yes	yes	yes	yes	yes
<i>Evid(p)</i> can be picked up?	yes	no	yes	yes	yes
Embeddable?	yes	no	yes	yes	yes

5. Discussion

The results for *ƒıƒkar* and *mymkən* are completely as predicted by the epistemic modal analysis. The behavior of *ıqs*, however, does not fit the predictions of the modal analysis regarding Test a, i.e. when *p* is known to be false. One phenomenon that is possibly related to this observation is that evidentials can sometimes be used counterfactually (Mizuno 2020). For instance, Japanese has a modal-type evidential marker *youda* that allows the speaker to distance herself from believing *p*, as shown in (30). This holds when the sentence is modified by the adverb *marude* ‘as if’, which can be paraphrased as ‘presumably I would infer that it rained’, or ‘had I not known that it hadn’t rained, I would have inferred that it rained based on what I observe’. On the other hand, if the sentence is modified by adverbs like *douyara* ‘apparently’, which forces the speaker to take into account the facts she knows, the continuation of *not p* becomes infelicitous. Note that if the sentence occurs without any adverb, the continuation is fine, suggesting that *youda* is by itself ambiguous between a standard inferential use and a counterfactual inferential.

(30) {#*dooyara* / *marude* / Ø} *ame-ga fut-ta youda kedo, jitsu-wa fut-teinai.*
apparently as.if rain-NOM fall-PST YODA but actually-TOP fall-NEG

‘It rained (I infer), but it actually didn’t.’

Returning to Qaraqalpaq, my hypothesis is that *oqs* shares this property with Japanese *youda*. Compare *oqs* and *ƙuƙar* in the following context: unlike *ƙuƙar*, *oqs* is allowed as long as it is *presumably* the case that the relevant inference can be made (i.e, the counterfactual inferential use).

(31) Context: Waking up in the morning and found lots of presents under the Christmas tree...

a. *ajaz.baba kel-gen-ge oqs-ap tor.*
Santa.Claus come-PTCP-DAT look.like-NONF PROG

‘It seems that S.C. came.’ (OK even if the speaker knows that S.C. doesn’t exist.)

b. *ajaz.baba kel-gen ƙuƙar.*
Santa.Claus come-PTCP maybe

‘Santa Claus might have come.’ (OK only if the speaker believes that S.C. exists.)

6. Summary

This note provided the paradigm of inferential evidentials in Qaraqalpaq. Specifically, I applied the standard tests to identify the status of the evidential markers as modals or illocutionary operators. The tentative result is that all three markers behave in line with epistemic modals, although more needs to be said regarding whether the markers can express counterfactual evidentiality.

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