Evidential Force in Quechua

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I. Introduction

Terminology.
Evidentiality: the linguistic encoding of the speaker's source of information.
Evidential: grammatical markers of evidentiality
Evidential Force: evidential value associated with a sentence.

Quechua Evidential Enclitics.
-mi/-n: Direct / Witnessed / Experiential
-si/-s: Reportative
-chá: Conjectural

(1) a. Ines-qa   qaynunchay ñaña-n-ta-**n**   watuku-rqa-n.
         Inés-TOP yesterday   sister-3POSS-ACC-**mi** visit-PST1-3

     '(I have direct evidence that) Inés visited her sister yesterday.'

     b. Ines-qa   qaynunchay ñaña-n-ta-**s**   watuku-sqa.
         Inés-TOP yesterday   sister-3POSS-ACC-**si** visit-PST2

     '(I have reportative evidence that) Inés visited her sister yesterday.'

     c. Ines-qa   qaynunchay ñaña-n-ta-**chá**   watuku-rqa-n.
         Inés-TOP yesterday   sister-3POSS-ACC-**chá** visit-PST1-3

     '(I conjecture that) Inés visited her sister yesterday.'[1]

Research question: Is evidential force in Quechua a conversational implicature, a truth-functional or an illocutionary phenomenon?

▶ Evidential force is not cancelable, and can therefore not be a conversational implicature. It is also not truth-functional, and can therefore not be a semantic operator (section II.)

▶ The illocutionary analysis of evidential force explains why evidential force does not interact (much) with Boolean operators and quantifiers, and why it does interact with the question operator (section III.)

II. Observations regarding cancellability of evidential force

▶ Some researchers, e.g. Nuckolls (1993), claim that the Direct evidential *-mi* marks speaker's certainty. The evidential force of sentences containing *-mi* is then derived from the fact that, often, the speaker is certain because they have direct evidence.

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[1]Abbreviations used in examples: 1: 1st person, 2: 2nd person, 3: 3rd person, 3PL: 3rd person plural, 2POSS: 2nd person possessive, 3POSS: 3rd person possessive, 3SUBJ/2OBJ: 3rd person subject 2nd person object, ACC: accusative, ADD: additive, CONJ: conjunction, NEG: negative, PL: plural, PST: past tense, PST2: indirect past tense, TOP: topic

▶ However, this cannot be a conversational implicature, because it is not cancelable: (2)a.-c. are incoherent continuations of (1)a.-c. respectively.[2]

(2) a. Ichaqa mana chay-ta riku-rqa-ni-chu.
        but   not   this-ACC see-PST1-1SG-NEG

        'But I did not see this.'

     b. Ichaqa mana chay-ta willa-wa-rqa-nku-chu.
        but   not   this-ACC tell-1OBJ-PST1-3PL-NEG

        'But I was not told this.'

     c. Chay-ta willa-wa-rqa-nku.
        this-ACC tell-1OBJ-PST1-3PL

        'I was told this.'

▶ Whether or not (1)a.-c. are true is independent of the kind of evidence the speaker has. Thus, (3)a. is taken to deny the truth of all three examples in (1).

▶ It is not possible to challenge the truth of a statement by explicitly claiming that the speaker does not have the kind of evidence they indicate. For example, countering (1)b. with (3)b. leads to an incoherent discourse.

(3) a. Mana-**n** chiqaq-chu. Manta-n-ta-lla-**n**   watuku-rqa-n.
        not-**mi**   true-NEG   mother-3POSS-LIM-**n** visit-PST-3

        'That's not true. She only visited her mother.'

     b.# Mana-**n** chiqaq-chu. Mana-**n** chay-ta willa-rqa-sunki-chu.
        not-**mi**   true-NEG   not-**mi** this-ACC tell-PST-3SUBJ/2OBJ-NEG

        'That's not true. You were not told this.'

III. Evidential force as an illocutionary phenomenon

1. Speech Acts, Boolean operations and quantifiers

▶ Krifka (1999): Speech acts do not form a Boolean algebra. Complementation and disjunction are undefined (see (4) and (5)). Only conjunction is defined (see (6)).

(4) a. **Ama**-ña ripu-nki-ña-**chu**.
        not-yet go-2-yet-**neg**

        'Don't go yet!'
       # 'I don't request you to go already.'

     b. Imanaqtin **mana** mikhu-nki-**chu**?
        why   **not**   eat-2-**neg**

        'Why have you not eaten?'
       # 'I'm not asking you whether you have eaten.'

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[2]Since Quechua does not have a verb for conjecture, one way to deny that one has conjectural evidence is to claim that one has another type of source of information.

(5)   a.# Mayqen-ta Anna wayk'u-rqa-n? **Utaq** mayqen-ta Berta wayk'u-rqa-n?
          which-ACC Anna cook-PST-3   or   which-ACC Berta cook-PST-3

        # 'Which (dish) did Anna cook? Or which did Berta cook?'

    b.# Lawa-yki-ta   mikhuy! **Utaq** mate-yki-ta   ukyay!
         soup-2POSS-ACC eat   **or**   tea-2-POSS-ACC drink

        # 'Eat your soup! Or drink your tea!'

(6)   a. Mayqen-ta Angel wayk'u-rqa-n? Mayqen-ta-**taq** Berta wayk'u-rqa-n?
       which-ACC Angel cook-PST-3   which-ACC-**conj** Berta cook-PST-3

       Which (dish) did Angel cook? And which did Berta cook?

    b. Lawa-yki-ta mikhuy! Mate-yki-ta-**pas** ukyay!
       soup-ACC   eat   tea-ACC-**add**   drink!

       'Eat your soup! And drink your tea!'

▶ Universal quantifiers can scope out of questions, resulting in the so-called pair-list reading, but existential quantifiers cannot, see (7)a. and b. respectively.

(7)   a. Q: Mayqen-ta llapan irqi-kuna wayk'u-rqa-nku?
         Q: which-ACC all   child-PL cook-PST-3PL

       'Q: Which (dish) did every child cook?'

       A: Angel-qa papa-ta-**n**   Berta-taq sara-ta-**n**   Carlos-taq
       A: Angel-TOP potatoe-ACC-**mi** Berta-CONJ corn-ACC-**mi** Carlos-CONJ
       tarwi-ta-**n**   wayk'u-rqa-nku.
       tarwi-ACC-**mi** cook-PST-3PL

       'A: Angel the potatoes, Berta the corn and Carlos the tarwi.'

    b. Q: Mayqen-ta wakin irqi-kuna wayk'u-rqa-nku?
         Q: which-ACC some child-PL   cook-PST-3PL

       'Q: Which (dish) did some children cook?'

     # A: Angel-qa papa-ta-**n**   Berta-taq sara-ta-**n**   wayk'u-rqa-nku.
      A: Angel-TOP potatoe-ACC-**mi** Berta-CONJ corn-ACC-**mi** cook-PST-3PL

      # A: Angel the potatoes, and Berta the corn.'

▶ The analysis of evidential force as a illocutionary phenomenon predicts that, if any semantic operators can scope over it, then it will only be conjunction and universal quantifiers.

▶ (8) shows that sentence negation cannot negate evidential force and (9) shows that disjunctions cannot scope over evidential force.

(8) Ines-qa **mana-n/-s/-chá** qaynunchaw ñaña-n-ta
Inés-TOP **not-mi/-si/-chá** yesterday sister-3POSS-ACC
watuku-rqa-n-**chu**/watuku-sqa-**chu**.
visit-PST-3-**neg**/VISIT-PST2-**neg**

(i) '(I have direct/reportative/conjectural evidence that) Inés didn't visit her sister yesterday.'
(ii)# '(I do not have direct/reportative/conjectural evidence that) Inés visited her sister yesterday.'[3]

(9) Ines-**mi/-si/chá utaq** Juan-**mi/-si/-chá** llalli-rqa-n/llalli-sqa.
Ines-**mi/-si/chá or** Juan-**mi/-si/-chá** win-PST-3/win-PST2

(i) '(I have direct/reportative/conjectural evidence that) Inés or Juan won.'
(ii) # (I have direct/reportative/conjectural evidence that) Inés won or (I have direct/reportative/conjectural evidence that) Juan won.'

► For conjunction and universal quantifiers, however, a wide scope interpretation can be assigned, see (10) and (11).

(10) Ines-wan-**mi/-si/-chá** Juan-wan-**mi/-si/-chá** llalli-rqa-nku/llalli-sqa-ku.
Ines-with Juan-with win-PST-3PL-**mi/-si/-chá**

(i) '(I have direct/reportative/conjectural evidence that) Inés and Juan won.'
(ii) (I have direct/reportative/conjectural evidence that) Inés won and (I have direct/reportative/conjectural evidence that) Juan won.'

(11) Llapan irqi-kuna-**n/-s/-chá** mikhu-rqa-nku.
all child-PL-**mi/-si/-chá** eat-PST-3PL

(i) '(I have direct/reportative/conjectural evidence that) all children [= Marya, Inés and Pawlu] ate.'
(ii) 'For all children, (I have direct/reportative/conjectural evidence that) that they ate. [= (I have direct/reportative/conjectural evidence that) Marya ate and (I have direct/reportative/conjectural evidence that) Inés ate and (I have direct/reportative/conjectural evidence that) that Pawlu ate.]'

► Only for conjunction and universal quantifiers is an interpretation in which they have scope over evidential force possible (interpretations (ii) in (10) and (11)).

► What is the difference between the reading in which evidential force has wide scope over the conjunction/universal quantifier, and the reading in which it has narrow scope?
Let's distinguish between *evidence types*, that is DIRECT, REPORTATIVE, CONJECTURE, and *evidence tokens*, the specific evidence the speaker bases his or her utterance on.
Hypothesis:
(i) wide scope of evidential force: speaker has a single evidence token for the entire

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[3]Note that the verb form with past tense *-sqa* is generally used with the Reportative *-si*, and the verb form with past tense *-rqa* is generally used with the Direct evidential *-mi* and the Conjectural *-chá*

proposition.

(ii) narrow scope of evidential force: speaker has potentially distinct evidence tokens for each conjunct/each member of the restriction.

▶ This ambiguity might mean:
DIRECT: (i) the conjuncts form part of a single event which the speaker observed
(ii) the conjunctions describe different events each of which the speaker observed
REPORTATIVE: (i) the speaker has a single reportative source
(ii) the speaker has distinct reportative sources for each conjunct
CONJECTURAL: (i) the speaker bases their conjecture on a single set of premisses
(ii) the speaker makes distinct conjectures based on distinct sets of premises.

▶ The fact that scopal interactions between evidential force and semantic operators is restricted in this manner, is a further argument against its analysis as a semantic operator.

2. Evidential force in content questions

▶ If evidential force is analyzed as an illocutionary operator, we can also expect scope ambiguities with other illocutionary operators.

(12) Pi-ta-**s**   Ines-qa   watuku-sqa?
     who-ACC-**si** Inés-TOP visit-PST2

   (i) '(Someone else wants to know) Who did Inés visit?'
   (ii) '(I assume you will know from someone else) Who did Inés visit?

▶ (12) is ambiguous as indicated by the glosses.
Hypothesis: This ambiguity corresponds to a scope ambiguity between the Reportative REP and the question operator QUEST.

▶ *Origo*: the locus of the evidential evaluation (Garrett 1998). Usually, the speaker is the origo. However, in (12)(ii), the hearer is the origo.

▶ For the Direct evidential *-mi* and the Conjectural *-chá*, it is not as clear that there exists a similar ambiguity with QUEST. For *-mi*, the origo ambiguity might partially be interpreted in terms of authority:
origo=speaker: speaker asks with authority.
origo=hearer: speaker expects hearer to base their answer on direct evidence.

IV. Conclusion

▶ I have argued that evidential force in Quechua is best analyzed as an illocutionary phenomenon. It is cancellable and can therefore not be analyzed as a conversational implicature; evidential force does not have truth-functional effects and does not interact (much) with semantic operators, and can therefore also not be analyzed as a semantic operator. The illocutionary analysis accounts for these facts, as well as for the observed scope ambiguity with the question operator.

▶ The illocutionary analysis can possibly be extended to evidential force in other languages. Support for this hypothesis comes from de Haan's (1999) observation that cross-linguistically sentence negation is always within the scope of evidential force.

▶ The discussion in this talk also shows that by limiting most of the formal semantic and pragmatic research efforts to familiar languages, some phenomena do not receive the attention they deserve. Only few researchers have investigated evidentiality from a perspective of modern semantic and pragmatic theory.

V. Further Work

▶ Formalization. Krifka's (1999) framework for analyzing speech acts seems to be promising to analyze evidential force as an illocutionary phenomenon. However, one will probably have to modify/extend it. As a first attempt, one might try to represent the ambiguity between the question operator and the reportative force as in (13).

(13)   a. REP QUEST$(\lambda p.\exists y[p = {}^\wedge Visit(I, y)])$
        b. QUEST REP $(\lambda p.\exists y[p = {}^\wedge Visit(I, y)])$

But it is clear that this will not do because of type mismatches.

▶ Further research is needed on the question of what kind of illocutionary operator evidential force is. Is it on a par with speech act verbs, or is it better analyzed as a speech act modifier similar to speech act adverbs such as *obviously, frankly, etc.*?

▶ Evidentials can cross-linguistically not occur in subordinate clause. It would be interesting if the analysis of evidential force as an illocutionary operator could shed some light on why this is so.

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