Yauyos Quechua Evidentials and Evidential Modifiers
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This paper examines the evidential system of Yauyos (ISO 639-3: [qux]), a hitherto undocumented, extremely endangered Quechuan language of Peru. Yauyos, like other Quechuan languages, counts three evidential affixes: direct (*-mI*), reportative (*-shI*), and conjectural (*-chrI*), as in (1), (2), and (3).[1] Yauyos is unusual, however, in that each of its three evidentials counts three variants, formed by the affixation of the evidential modifiers ("EM's"), *-Ø, -k, -ki,* to the base form. Evidentials obligatorily take modifiers; modifiers attach exclusively to evidentials. With all three evidentials, the *-k* form is associated with some variety of increase over the *-Ø* form, and the *-ki* form with greater increase still. In the default case, the EM's indicate an increase in strength of evidence. With DIRECT *-mI-Ø/k/ki* and REPORTATIVE *-shI-Ø/k/ki*, the EM's then generally affect the interpretation of strength of assertion, with *-k* and *-ki* indicating increasingly strong assertions, as in (1) and (6); with CONJECTURAL *-chrI-Ø/k/ki*, the EM's affect the interpretation of certainty of conjecture, with *-k* and *-ki* indicating increasingly certain conjectures, as in (4) and (5). In case the evidential takes scope over a modalized verb, the modifiers then generally affect the interpretation of the force of the modal: with universal-deontic and future-tense verbs, for example, *-k* and *-ki* generally indicate increasingly strong obligations or imminent futures, respectively, as in (7) and (8).

I argue that interpretation is pragmatic. $\langle$*-Ø, -k, -ki*$\rangle$ forms a Horn scale that gives rise to conversational (quantity) implicatures. That a speaker uses the a weaker EM entails that she couldn't have used a stronger form. I model this making use of Schulz and van Rooij's (2004, 2005, 2006) model-theoretic formalization of Grice's Principle.

Gricean interpretation is described by selecting minimal models, selection taking place among those possibilities where the speaker knows *P* and the order that determines minimality compares the strength of evidence of evidence type *EV* that the speaker has for *P*. The sentence $\mathbf{K}^{EV,EM}P$ 'the speaker knows *P* by *EV-EM*' (wrt *W* and *R*) is: defined in *w* if the speaker has evidence for *P* of type *EV* of and strength *EM* in *w*; is true in *w* if *P=T* in every world in *R(w)*, $w \in R(w)$. The order $\leq_{EM,S}$ ranks possibilities in terms of the extent of the speaker's evidence of type *EV*. *φ* is evidence for *ψ* if the conditional probability of *ψ* given *φ=T* exceeds the conditional probability of *ψ φ=F* (McCready(2010).

> DEFINITION (*Interpreting evidentially-marked sentences according to the Gricean Principle*)
>
> *Let EM be an evidential modifier and S be a pair of a predicate P and a pair of an evidential type EV and evidential modifier EM in context C = $\langle W,R \rangle$. Define the pragmatic interpretation grice$^C_{SvR}$(EM,S) of EM wrt S and C*
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> $grice^C_{SvR}(EM,S) =_{def} \{w \in [\mathbf{K}^{EV,EM}P]^C | \forall w' \in [\mathbf{K}^{EV,EM}P]^C : w \leq_{EM,S} w'\}$

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1   *Oka-ta   qasa-mu-n-<u>mi</u>-Ø   kay-paq*
    oca-ACC   freeze-CIS-3-EVD-Ø DEM.P-LOC
    'Oca freezes around here.'   (LlankaTravel, 05:09-12)
    -Ø DIRECT present: evidence from personal experience, utterance is a neutral assertion

2   *Qari-n-ta-<u>sh</u>-Ø   wañu-ra-chi-n   masha-n-ta-<u>sh</u>-Ø   wañu-ra-chi-n*
    man-3-ACC-EVR-Ø die-PRF-CAUS-3   son.in.law-3-ACC-EVR-Ø die-PRF-CAUS-3
    'She killed her husband, <u>they say</u>; she killed her son-in-law, <u>they say</u>.'   (ViñacGrandparents3, 37:28-35)
    -Ø REPORTATIVE past: evidence is secondhand, utterance is a neutral assertion

3   *Alma-yuq   ka-ya-n-<u>chri</u>-Ø*
    soul-POSS   be-PROG-3-EVC-Ø
    'She must be with a soul [of a recently dead relative].'   (YuracsayhuaSoul, 01:59-02:01)
    -Ø CONJECTURAL present: evidence is either personal or secondhand, utterance is a neutral conjecture

4   *Chay-<u>chri</u>-k   mana   chaski-<u>rqa</u>-chu*
    DEM.D-EVC-K no   accept-PST-NEG
    'That's why it <u>wouldn't have</u> received it.'_{EMPH}   (ViñacGossip, 2:18-21)
    -k CONJECTURAL past: strong speaker certainty in conjecture

5   *Anu-ya-n-ña-<u>chri</u>-ki*
    wean-PROG-3-DISC-EVC-KI
    'She <u>must</u> be weaning [him], <u>for sure</u>.'   (ViñacMilking, 00:55-57)
    -ki CONJECTURAL present: strongest speaker certainty in conjecture

6   *Prisiyu-n-pis ka-n-<u>mi</u>-ki   chakiruptinqa*
    price-3-ADD   be-3-EVD-KI   dry-URGT-SUBDS-3-TOP
    'They have their (<u>high</u>) price when you dry them.'   (ViñacMilking, 16:08-10)
    -ki DIRECT present: strongest assertion, increase in degree of the predicate, 'pricy'

7   *Ri-shaq.   Yaku-ta-<u>chri</u>-ki   qawa-mu-shaq*
    go-1.FUT   water-ACC-EVC-KI see-CIS-1.FUT
    'I have to go. I have to take care of the water now'.   (TanaOrchard, 30:39-43)
    -ki CONJECTURAL universal deontic: strongest obligation, urgency

8   *Kuka-cha-n-kuna-ta   apa-ru-pti-y-qa   tiya-pa-wa-<u>nga-chri</u>-k*
    coca-DIM-3-PL-ACC   bring-URGT-SUBDS-1-TOP sit-BEN-1.OBJ-3.FUT-EVC-K
    'If/when I bring them their coca, they <u>will</u> accompany me sitting.'_{EMPH}   (ViñacCure1, 0:27-32)
    -k CONJECTURAL future: close/certain future

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