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On Cantonese yes-no question particle *aa4*: evidential bias and confirmation

Ka-Fai Yip (*Yale University*)
✉ *kafai.yip@yale.edu*

Yale

Aa4 & yes-no question particles

- Cantonese yes-no Q particles
  - Highly sensitive to **bias** (Hara 2014, Lam 2014, Law, Li & Bhadra 2018, *i.a.*)
  - Obligatory *positive* bias: ***ho2***
  - Obligatory *negative* bias: ***me1***
  - Obligatory *neutral* bias: ***maa3***, A-not-A (≠flexible)
- ***Aa4*** **[a^{1}]**'s main function: seeks confirmation (Cheung 1972, Law 1990, Leung 2005, Li et al. 1995, Sybesma & Li 2007, Tang 2015)

(1) Aaming wui lai **aa4?** (*cf.* declarative w/ *aa3* [a^{1}])
Ming will come AA4
'Will Ming come? (is that true?)'

- **Puzzle 1**: inconsistent generalizations on its *bias*
  - *Positive* bias (Matthews & Yip 1994:310, Wakefield 2014)
  - *Negative* bias (Matthews & Yip 1994:311,346, Li et al. 1995; cf. Kuong 2008 for Macau)
  - Flexible between *negative* and *neutral* bias (Hara 2014)
  - → Apparent ***flexibility*** (*cf.* English polar questions)
- **Puzzle 2**: *Negative rhetorical readings* (M & Y 1994, Li et al. 1995)
  - Lack of *positive rhetorical* readings: at odds with the apparent flexibility & cases with positive bias

Two claims

- ***Aa4*** requires ***positive evidential bias*** and is ***underspecified for epistemic bias***
  - A need to distinguish between sources of bias: *contextual evidence* vs. *epistemic states* (Sudo 2013)
- ***Aa4*** seeks confirmation from two levels: *proposition p* vs. *addressee's belief of p*
  - *Negative rhetorical* readings arise as a conversational implicature when seeking confirmation of *addressee's belief*
  - The two-level uses resemble **Canadian English *eh*** (Wiltschko & Heim 2016)
  - Possibility to analyze the *higher-level* use as a ***speech act operator*** (Law, Li & Bhadra 2018, this workshop)

Evidential Bias vs. Epistemic Bias

- Differentiating between sources of bias (Sudo 2013, Gyuris 2017)
  - Epistemic bias: The speaker's belief (i.e. *epistemic state*)
  - Evidential bias: *contextual evidence* that is "***mutually available*** to the participants in the current discourse situation"
- The division of labor between *aa4* & other yes-no Q prts
  - Epistemic bias: *ho2 (+ve)*, *me1 (-ve)*, *maa3*/A-not-A *(netural)*
  - Evidential bias: *aa4 (+ve)*

aa4 returns $Q_{<st,t>}$ s.t. (i) **Q={p, ¬p} ∧ ¬Know(*s*, Ans(Q))**
(ii) **Ev(C) ⊨ Probably(p)**
(iii) ***s* puts *a* under obligation to ASSERT(Ans(Q))**
where *s* = speaker; *a*= addressee; *Ev(C)* = evidence available in a context C (Gyuris 2017); *probably* = weak necessity modal in Kratzer (1991)

Epistemic bias	Evidential bias	*aa4*	*ho2*	*me1*	A-not-A/ *maa3*	Scenarios
+ve	neutral	#	OK	#	OK/#	Lobsters promised (2)
neutral	+ve (inf.)	OK	#	#	OK	Lobsters in bag (3)
+ve	+ve (inf.)	OK	OK	#	#	Stacked exam papers (4)
neutral	neutral	#	#	#	OK	Kinder Surprise Egg
neutral	-ve (inf.)	#	#	#	OK	Ming's face
-ve	neutral	#	#	OK	#	Ming the introvert
-ve	+ve (hearsay)	OK	#	OK	#	Feb 29th

- Positive epistemic bias
  - Ming's promise in the epistemic state *(+ve)*
  - Lack of contextual evidence (neutral)

(2) [Scenario: *Yesterday, Ming told you that he will buy lobsters.* That is your favorite food and you were excited. Today, Ming went to a seafood store with Fan. You call Fan, and ask:]
Aaming maai-zo lunghaa {**#aa4/ o3ho2**}?
Ming buy-perf lobster AA4 HO2
'Ming bought lobsters, didn't he?'

vs. Positive evidential bias
vs. No prior belief (neutral)
vs. *Weak* positive contextual evidence *(+ve)*

(3) [Scenario: Today, Ming went to a seafood store with Fan. Ming came back, *holding a bag in which there seems to be a red claw*, but you cannot see it very clearly. You ask Fan, 'What did Ming buy? …']
…Aaming maai-zo lunghaa {**aa4/ #o3ho2**}?
Ming buy-PERF lobster AA4 HO2
'… Did Ming buy lobsters?'

vs. Both
vs. Positive belief *(+ve)* (induced by *strong* evid.)
vs. Strong positive contextual evidence *(+ve)*

(4) [Scenario: You are a teacher monitoring a final exam. The exam has ended and the *exam papers are stacked in front of you*. *You think that all the students probably have submitted their exam papers*, but nevertheless ask them for final confirmation:]
Taaigaa gaau-cai gyun {**laa4/ laa3 ho2**}? Gam zau-dak.
everyone submit-all paper LAA4 LAA3 HO2 then go-can
'Everyone has submitted their exam papers, right? You can go now.'

Confirmation of belief

- **Non-SoK** (seat of knowledge) requirement:
  - Speaker must ***not*** know the Ans of *aa4*-Qs
  - Cannot be used w/ 'after all' for rhetorical Qs (Sadock 1971, Han 2002)

Types of Qs	Seat of Knowledge		*Aa4*
	Speaker?	Addressee?	
Info-seeking	NO	YES	OK
Quiz	YES	NO	#
Rhetorical	**YES**	YES	# (5)

(5) [Scenario: In Dec 2021, you & Ming were discussing COVID. As variants emerged again, you both lost hope for going back to normal. You said:]
Gongdoumei, go jikcing wui jyun {**#aa4/^{OK}me1**}?
after.all CL pandemic will end AA4/ ME1
'After all, the pandemic won't end, will it?'

- The *negative rhetorical* readings
  - Seemingly violates the non-SoK requirement
  - BUT the core proposition *p* ***can be embedded***
    - → *p* is ***not*** in the root question
    - → *aa4* asks for confirmation of ***belief of p***

(6)[Scenario: You are an art teacher and you see your student drew a six-legged spider.]
(nei gokdak) zizyu dak lok zek goek **aa4**?
2SG think spider only.have six CL leg AA4
'Do you think that spiders only have six legs?' (i.e. spiders ***do not*** only have six legs)

- Resemble Canadian English *eh* (Wiltschko & Heim 2016:309)

(7)[Scenario: Mary is walking her new dog when she runs into John. She is expecting that he would congratulate her on the new dog, but he's not mentioning it. She isn't sure anymore whether he actually realizes that she has a new dog. So she utters:]
*I have a new dog, {**eh**/*huh/*right}?* (= Confirm that you know that p is true)

- Triggers of *aa4*'s higher-level confirmation
  - (i) Speaker *y* is the SoK of *p* s.t. *p* is (obviously) false
    Know (*s*,¬p) ∧ Believe(*s*,¬p∈CG)
  - (ii) Positive contextual evidence for addressee's belief of p (i.e. inconsistent with speaker's belief of CG)
    Ev(C) ⊨ Probably(Believe(*a*,p))
  - → Confirming addressee *x*'s belief
    s puts *a* under obligation to ASSERT(Ans(Q));
    Where Q={Believe(*a*,p), ¬Believe(*a*,p)}
  - ⇝ Conversational implicature:
    Challenges the addressee x's belief, giving rise to the negative rhetorical reading
    (i.e. p is wrong, are you sure you still want to believe it?)

Sel. Ref. • **Law**, Jess H.-K., Haoze **Li** & Diti **Bhadra** (2018) Questioning speech acts. In *SuB-22*, 53–70. • **Sudo**, Yasutada. (2013) Biased polar questions in English and Japanese. In *Beyond Expressives: Explorations in Conventional Non-truth conditional Meaning*, 277–297.