

Expletive agreement, evidentiality, and modality in Logooli

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1 Introduction¹

- Logooli (Luyia, Bantu) has two “expletive” agreement markers, *e-* and *ga-*.²
- In addition to marking class 9 (*e-*) and class 6 (*ga-*) subject agreement, these morphemes occur in our consultant’s responses to English prompts with expletive subjects, as in (1):

- (1) a. *e-ror-ek-a ndee Sira a-gw-ε*
9-look-AC-FV that 1Sira 1-fall-FV
‘It looks like Sira fell’
- b. *ga-ror-ek-a ndee Sira a-gw-ε*
6-look-AC-FV that 1Sira 1-fall-FV
‘It looks like Sira fell’³

- In their “expletive” use, the markers may convey:

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²Logooli (or Luragooli, Maragoli, Lulogooli, among others) is a Bantu language in the Luyia subgroup. It’s spoken mostly in Western Kenya (around Lake Victoria) and in Tanzania by around 600,000 people (Lewis, et al. 2016). It exhibits a range of “typical” Bantu phenomena, including two tones, and a complex tense/aspect system, all of which we ignore in this handout.

³Abbreviations used in this handout include:

- evidential-like meanings (direct vs. indirect perception)
 - general vs. restricted knowledge
 - evidence strength
 - (emotional) affectedness
 - modal force
- Even though we sometimes refer to these morphemes as marking an “expletive” subject, they clearly contribute something **semantically non-trivial**.
 - In this talk, we’ll look at the various differences in interpretation associated with each marker, and provide an analysis of *e-* and *ga-* in the spirit of Matthewson, et al. (2007) and Rullmann, et al. (2008) (henceforth RMD).
 - Following RMD, we propose that these morphemes are overt instantiations of choice functions that operate over a modal base supplied by the verb and contextually supplied ordering source.
 - The difference between *e-* and *ga-* is in the size of the subset that the choice function selects. *e-* simply picks out a (non-empty) subset of the modal base, while *ga-* necessarily picks out a non-proper (non-empty) subset.
 - In the following sections, we’ll show how this difference accounts for the various interpretations that arise in combination with different verbs and in different contexts.
 - We take this as evidence against a strict separation of evidentiality and modality, as argued by e.g. de Haan (1999), and in favor of treating both categories as realizations of the same theoretical phenomenon (argued by e.g. RMD, Palmer 1986, among others).
 - This project is also a first pass at examining evidentiality in Bantu, a topic that is otherwise not well described or understood.

2 Logooli data

- The following sections report the “typical” interpretation of *e-/ga-* in combination with various classes of verbs. We discuss later how these typical interpretations can

1-17 : class markers
 sg/pl : singular/plural
 AC : anticausative
 CAUS : causative

COP : copula
 FUT : future
 FV : final vowel
 NEG : negative

PASS : passive
 POSS : possessive
 PROG : progressive
 PRT : particle

REC : reciprocal
 REFL : reflexive

be shifted depending on other factors.

2.1 Indirect (*e-*) versus direct (*ga-*) perception

- In combination with verbs of perception like *kuholeka* ‘to be heard,’ *kufana* ‘to seem,’ and *kuroreka* ‘to appear,’ *e-* conveys that the speaker has indirectly perceived evidence for the truth of the embedded proposition, while *ga-* conveys that the speaker has directly perceived evidence for the truth of the proposition.⁴

- Consider the following pair of contexts:

- (2) Context: The speaker’s friend tells him that a party he (the friend) attended was fun. However, the speaker did not attend or overhear the party himself. The speaker can respond by saying:

a. *e-hol-ek-a kuresa vu-geni vu-ar-ε vu-rahe*
 9-hear-AC-FV like 15-party 15-COP-FV 15-good
 ‘It sounds like the party was fun’

b. # *ga-hol-ek-a kuresa vu-geni vu-ar-ε vu-rahe*
 6-hear-AC-FV like 15-party 15-COP-FV 15-good
 ‘It sounds like the party was fun’

- (3) Context: The speaker heard a loud party happening next door to his apartment. The speaker can say:

a. # *e-hol-ek-a kuresa vu-geni vu-ar-ε vu-rahe*
 9-hear-AC-FV like 15-party 15-COP-FV 15-good
 ‘It sounds like the party was fun’

b. *ga-hol-ek-a kuresa vu-geni vu-ar-ε vu-rahe*
 6-hear-AC-FV like 15-party 15-COP-FV 15-good
 ‘It sounds like the party was fun’

- This contrast is maintained with other verbs of perception, e.g. *kufana* ‘to seem’:

- (4) Context: It’s flu season, and Imali didn’t come to school.

⁴Here and in all following, we’re ignoring the different “detransitivizing” affixes that can appear in these constructions. These can include (exclusively) the anticausative *-Vk*, the passive *-w*, and the reciprocal *-an* (plus anticausative). The differences between these suffixes in the expletive constructions is not well understood.

- a. *e-fan-a kuresa Imali a-saal-a*
 9-seem-FV like 1Imali 1-be.sick-FV
 ‘It seems like Imali is sick’
- b. # *ga-fan-a kuresa Imali a-saal-a*
 6-seem-FV like 1Imali 1-be.sick-FV
 ‘It seems like Imali is sick’
- (5) Context: You see Imali coughing and sneezing.
- a. ? *e-fan-a kuresa Imali a-saal-a*
 9-seem-FV like 1Imali 1-be.sick-FV
 ‘It seems like Imali is sick’
- b. *ga-fan-a kuresa Imali a-saal-a*
 6-seem-FV like 1Imali 1-be.sick-FV
 ‘It seems like Imali is sick’
 Speaker comment: “(5b) (ie, with *ga-*) is only appropriate if you’re looking at Imali.”

- Our consultant noted that it’s not completely infelicitous to use (5a) in the context in (5). This is because it is also possible that Imali’s sneezing and coughing is due to allergies, rather than to sickness. Since even direct perception is still compatible with speaker doubt, the use of *e-* in this context is still available.
 - What is crucial is that the direct perception in the context (i.e, the speaker witnessing Imali sneezing and coughing) enables the speaker to use *ga-* and make the strongest claim possible, unlike in (4).
- In summary: The distinctions given in (4)–(5) suggest that the expletive agreement morphemes contribute evidential-like meanings encoding how the speaker learned the information s/he is asserting:
 - *e-* marks that the speaker has **indirect evidence** for the embedded proposition.
 - *ga-* marks that the speaker has **direct evidence** for the embedded proposition.

2.2 Restricted (*e-*) versus general (*ga-*) knowledge

- When combined with attitude report verbs like *kumanyeka* ‘to be known,’ *kusoverwa* ‘to be believed,’ and *kuvoleka* ‘to be said,’ *e-* conveys “restricted” or “privileged” knowledge, whereas *ga-* conveys “general” knowledge.

- Our consultant sometimes indicates this by supplementing his English glosses of his Logooli utterances with e.g. “It is **not widely/well** known/believed/said that...” (for *e-*) and “It is **widely/well** known/believed/said that...” (for *ga-*):

- (6) *ga-many-ek-a ndee Kurt Cobain y-i-isuŋga*
 6-know-AC-FV that Kurt Cobain 1-REFL-kill
 ‘It is (well) known that Kurt Cobain killed himself’⁵
- (7) *e-many-ek-an-i ndee Kurt Cobain y-aremban-a na m-kari w-evε*
 9-known-AC-REC-FV that Kurt Cobain 1-argue-FV PRT 1-wife 1-POSS
 ‘It is (not well) known that Kurt Cobain argued with this wife (before he killed himself)’

- Note that to felicitously utter (6) or (7), the speaker need not have witnessed either the death of Kurt Cobain, or Kurt Cobain arguing with his wife. The speaker is merely relating the information that he knows, not relating how he acquired the information, in contrast with the perception verbs above.
- A similar contrast is found with *e-* and *ga-* in combination with verbs like *kuvoleka* ‘to say.’

- (8) a. *ga-vol-ek-i ndee Sira ya-yaanz-a ma-ndazi daave*
 6-say-AC-FV that 1Sira 1-like-FV 6-mandazi NEG
 ‘It’s (widely) said that Sira likes mandazi’
- b. *e-vol-ek-i ndee Sira ya-yanz-a ma-ndazi daave*
 9-say-AC-FV that 1Sira 1-like-FV 6-mandazi NEG
 ‘It’s (not widely) said that Sira likes mandazi’

- Thus, with attitude report verbs, *e-* and *ga-* have the following contrast:
 - *e-* marks that the speaker believes the embedded proposition is **not widely known/believed/hoped/etc.**
 - *ga-* marks that the speaker believes the embedded proposition is **widely known/believed/hoped/etc.**

⁵Kurt Cobain was the lead singer of the ’90s band Nirvana. He was married to Courtney Love. Cobain committed suicide at what was (arguably) the height of his fame.

2.3 Less affectedness (*e-*) versus more affectedness (*ga-*)

- In combination with emotive factive predicates like *kurereriza* ‘to be sad,’ *kufuniza* ‘to be surprised,’ and *kugenia* ‘to be odd/strange,’ *e-* expresses that the speaker is less affected in terms of the relative emotion, while *ga-* expresses that the speaker is extremely affected in terms of the relative emotion.

(9) Context: Maina is a huge Lakers fan. If the Lakers lose a game, he can say:

- a. # *e-verer-iz-a* *ndee Lakers va-goot-w-i*
9-be.sad-CAUS-FV that 2Lakers 2-defeat-PASS-FV
‘It’s sad that the Lakers lost’⁶
- b. *ga-verer-iz-a* *ndee Lakers va-goot-w-i*
6-be.sad-CAUS-FV that 2Lakers 2-defeat-PASS-FV
‘It’s sad that the Lakers lost’

(10) Context: Sira is a casual Lakers fan. If the Lakers lose a game, he can say:

- a. *e-verer-iz-a* *ndee Lakers va-goot-w-i*
9-be.sad-CAUS-FV that 2Lakers 2-defeat-PASS-FV
‘It’s sad that the Lakers lost’
- b. # *ga-verer-iz-a* *ndee Lakers va-goot-w-i*
6-be.sad-CAUS-FV that 2Lakers 2-defeat-PASS-FV
‘It’s sad that the Lakers lost’

- Note that the difference has nothing to do with whether the speaker has (in)direct evidence for the proposition, or whether the information is widely known or not. Thus, this is a distinct meaning from the two previous uses.
- *e-/ga-* have the following contrasts with emotive factives:
 - *e-* signals that the speaker is **less affected** by the predicate-specific emotion.
 - *ga-* signals that the speaker is **more affected** by the predicate-specific emotion.

⁶Literally: ‘It’s saddening that the Lakers were defeated.’

2.4 Weaker modal force (*e-*) and stronger modal force (*ga-*)

- Lastly, the two different expletives can occur with modal verbs.⁷ The use of *e-* signals weaker modal force, whereas *ga-* signals stronger modal force.

- Our consultant sometimes glosses his Logooli utterances with “should” (for *e-*) and “must” (for *ga-*).

- (11) Context: A school-age kid is skipping school. He runs into another kid skipping school, who tells him:

a. *e-dukan-a ndee u-zi-ε m-skolu m-soom-e*
 9-arrive-FV that 2sg-go-FV in-school PART-study-FV
 ‘It’s required that you go to school and study’

b. # *ga-dukan-a ndee u-zi-ε m-solu m-soom-e*
 6-arrive-FV that 2sg-go-FV in-school PRT-study-FV
 ‘It’s required that you go to school and study’

- (12) Context: A school-age kid is skipping school. He runs into a police officer, who tells him:

a. # *e-dukan-a ndee u-zi-ε m-skolu m-soom-e*
 9-arrive-FV that 2sg-go-FV in-school PART-study-FV
 ‘It’s required that you go to school and study’

b. *ga-dukan-a ndee u-zi-ε m-solu m-soom-e*
 6-arrive-FV that 2sg-go-FV in-school PRT-study-FV
 ‘It’s required that you go to school and study’

Speaker’s comment: “With *ga-*, there’s more force; you have no other choice. With *e-*, there’s a choice.”

- Thus, *e-* and *ga-* have the following contrast with modal verbs:
 - *e-* makes a **weak modal** assertion.
 - *ga-* makes a **strong modal** assertion.
- Unlike the data in the previous sections, the use of the agreement markers in (11)-(12) do not supply any information about directness or indirectness of evidence,

⁷By “modal verbs,” we mean verbs that introduce modal bases ordered according to some contextually supplied ordering source. The verb in (11)-(12), *kudukana*, is morphologically complex; it consists of *kuduka* ‘to arrive’ plus the reciprocal suffix *-an*. We have not found any monomorphemic “pure” modal verbs.

generality of knowledge, or affectedness. Rather, these data strongly suggest that *e-* and *ga-* interact with the modal base.

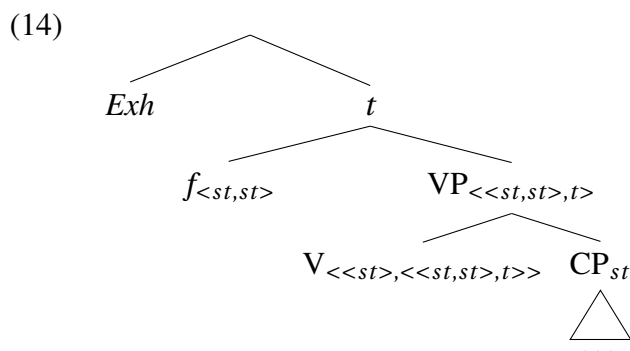
3 Proposal: Choice functions operating over modal bases

- Given the range of meanings outlined in section 2, our task now is to give a compositional semantics for the range of interpretations.
- We make some preliminary assumptions:
 - *e-* and *ga-* must combine with lexical items that contribute a **modal base** (ie., a set of worlds accessible from the actual world that are ordered according to some contextually supplied ordering source (Kratzer 1991, Hacquard 2011, among many others).
 - * That is, verbs like *kumanyeka* ‘to be known,’ *kuvoleka* ‘to be said,’ *kufana* ‘to seem like,’ and so on.
 - The worlds contained within these modal bases vary based on the verb. For instance, the modal base of *kuholeka* ‘to sound like’ contains worlds that contain auditory evidence, the modal base of *kuroreka* ‘to look (like)’ contains worlds that contain visual evidence, and so on.
- We propose an account in the spirit of RMD’s treatment of modality and evidentiality in St’át’imcets. That is, we propose that the expletive morphemes introduce **choice functions** that operate on this modal base supplied by the verb.
 - We further assume (following RMD) that **choice functions** can take a set as an argument and return some subset of that set.⁸
 - Here, the choice function supplied by *e-* or *ga-* takes the set of worlds in the modal base as its argument and returns a subset of those worlds.
- Slightly more formally: The choice function f takes as input a set of possible worlds (of type $\langle s, t \rangle$), and returns a subset of those worlds (of type $\langle s, t \rangle$); that is, for all sets of possible worlds A , $f(A) \subseteq A$.

⁸Choice functions were initially proposed by Reinhart (1997) to take a set and return an individual from that set. This was used to account for the interpretation of indefinite DPs.

- We propose a basic denotation for a Logooli modal verb in (13), with a structure given in (14):⁹

(13) $\llbracket \text{MODAL VERB} \rrbracket^w =$
 $\lambda P_{st} \lambda f_{st,st}$: the ordering source is appropriate for the modal base, and for any non-empty set A , $f(A) \subseteq A$. $\forall w' [w' \in f(\text{BEST}_{OS(w)}(\text{MB}(w))) \rightarrow P = 1 \text{ in } w']$



- We propose that *ga-* and *e-* return two different sizes of sets.
- *ga-* selects a **non-proper (non-empty) subset of the modal base**.
 - When the choice function selects all the worlds in the modal base, this amounts to universal quantification over the modal base, i.e., the proposition is true in all the worlds in the modal base.
- *e-* selects a **(non-empty) subset of the modal base**.
 - When *e-* picks out a subset of the worlds in the modal base, this amounts to existential quantification, i.e., there is some world in the modal base in which the proposition is true.
 - We further assume that the interpretation of *e-* is pragmatically strengthened by the application of an exhaustivity operator (*Exh*), in the spirit of Fox (2007) or Chierchia, et al. (2008).
 - Impressionistically, exhaustification operates over lexical items associated with scales. When it combines with a weak scalar item (e.g. *some*), it asserts that that item is true, and all stronger scalar alternatives to it are false (i.e., *some but not all*, where *all* is a stronger scalar alternative to *some*).

⁹This is a slight simplification. Since *e-/ga-* are subject agreement markers, we actually propose that they signal agreement with a null pronominal choice function (again, similar to RMD). The issue is relevant when we consider what happens with a nominal subject, mentioned in section 5.1.

– Slightly more formally:

- (15) $\llbracket Exh \rrbracket^w = 1$ iff $p = 1$ in w and for all stronger alternatives q to p : $q = 0$ in w
- For our purposes, we assume that *ga-* is a stronger alternative to *e-*, and that there are no stronger alternatives to *ga-*.
 - That is, given *Exh* application, the complement of the set returned by *e-* only contains worlds in which *P* is not true.

3.1 Walkthrough of an example according to our analysis

- We repeat a pair of sentences from (3):

- (16) a. *ga-hol-ek-a kuresa vu-geni vu-are vu-rahe*
6-hear-AC-FV like 15-party 15-COP 15-good
'It sounds like the party was fun'
(the speaker has direct evidence that the party was fun)
- b. *e-hol-ek-a kuresa vu-geni vu-are vu-rahe*
9-hear-AC-FV like 15-party 15-COP 15-good
'It sounds like the party was fun'
(the speaker has indirect evidence that the party was fun)
- Context #1: The speaker heard a loud party happening next door to their apartment (i.e, they have direct evidence for the embedded proposition).
 - **MB**: All the worlds that are compatible with what the speaker has heard (for instance: loud music, singing, shouting, etc.).
 - **OS**: Parties with loud singing are fun. Parties with loud music are fun. Etc.
 - Given this context, the embedded proposition (*the party was fun*) is true in all of the best worlds in the speaker's modal base (determined relative to the OS). The speaker therefore uses *ga-* to select all of these worlds.¹⁰
 - Context #2: The speaker's friend tells them that a party he (the friend) attended was fun. However, the speaker did not attend or overhear the party themselves (i.e, they have indirect evidence for the embedded proposition).

¹⁰We assume that speakers do not use *e-* in this context because they are obligated to make the strongest claim possible, given their evidence (following Grice's maxims).

- **MB**: All the worlds that are compatible with what the speaker’s friend has told them (for instance: there was loud music at the party, there was dancing at the party, there were a lot of people in attendance, etc.).
- **OS**: The speaker’s friend has a different idea of fun than the speaker does (e.g. their friend enjoys loud parties, but the speaker does not). Secondhand information is generally unreliable. Etc.
- Given this context, the best worlds in the speaker’s modal base (determined relative to the ordering source) includes worlds in which the embedded proposition (*the party was fun*) is false.
- The speaker therefore uses *e-* to select only the subset of the modal base where *the party was fun* is true.

4 Predictions of the analysis

4.1 Unavailability of *e-/ga-* in combination with non-modal verbs

- If we assume that the choice function introduced by *e-/ga-* is of type $\langle\langle s, t \rangle, \langle s, t \rangle\rangle$, then it cannot combine with verbs that do not supply a modal base.
- This differs from the English expletive subject *it_{Exp}*, which is able to grammatically occur in e.g. weather-*it* constructions:

(17) *It_{Exp}* is raining outside.

- Unlike English *it_{Exp}*, Logooli *e-* and *ga-* cannot occur in non-modal constructions:

(18) a. *riova ri-val-a*
 5sun 5-shine-FV
 ‘The sun is shining’
 (Given in response to ‘It is sunny.’)

b. **{e-/ga-}val-a*
 9-/6-shine-FV
 Intended gloss: ‘*It_{Exp}* is sunny.’

- We note that this data doesn’t preclude the existence of a “true” expletive in Logooli. However, we have not yet found any such item.

4.2 Non-speaker orientation

- In section 2.2, we described data in which the speaker uses *e-* or *ga-* to signal whether the embedded proposition is non-widely known/believed/hoped/etc. or widely known/believed/hoped/etc.
- In this case, the interpretation of the embedded proposition as widely or non-widely known is relative to the group of individuals that the speaker “associates” with (cf. Moltmann 2012).
- Because this group can vary contextually, we predict that in the right context, the speaker can (for instance) use *ga-* to report “widely known” information that the speaker themselves might not believe, or is only “widely known” in certain communities.

- (19) Context: A scientist visits a village where everyone believes that the world is flat. Although the scientist himself doesn’t believe that the world is flat, and many people outside the village do not think that the world is flat, he can felicitously state:

ga-ganagan-ang-w-a yeeno ndee ri-lova ri-a bameka

9-think-PROG-PASS-FV here that 5-world 5-COP flat

‘It’s (widely) thought here that the world is flat’

- In this context, the scientist is reporting what the “typical” villager thinks, not what he thinks, or what other people think outside of the village.

4.3 Variation based on background knowledge

- Since the use of *e-* versus *ga-* hinges on what is contained within the speaker’s modal base, changing the contents of an individual’s modal base (by modifying their background knowledge) can change whether they will use *e-* or *ga-*.
- The following example gives a context in which two speakers must differ in their choice of *e-* versus *ga-* based purely on their background knowledge:

- (20) Context: Imali and Maina are watching Roger Federer (a tennis star) play in a tennis match. Imali is a huge tennis fan and knows all the rules and statistics. However, Maina is only vaguely familiar with the rules, and otherwise knows nothing about tennis.

- a. *ga-ror-ek-a kuresia Federer a-kin-i vurahe karono*
 6-look-AC-FV like 1Federer 1-play-FV well today
 ‘It looks like Federer is playing well today’
 ✓ if Imali says this, # if Maina says this
- b. *e-ror-ek-a kuresia Federer a-kin-i vurahe karono*
 9-look-AC-FV like 1Federer 1-play-FV well today
 ‘It looks like Federer is playing well today’
 # if Imali says this, ✓ if Maina says this
- Imali, the knowledgeable speaker, can only felicitously use *ga-*.
 - This is because her ordering source involves the rules of tennis. That is, she can accurately judge (according to these rules) whether Federer is playing well or poorly.
 - She therefore uses *ga-* to make a much stronger claim.
 - Maina, the less knowledgeable speaker, can only felicitously use *e-*.
 - This is because her ordering source does not involve the actual rules of tennis. That is, according to her ordering source, there are worlds in her modal base in which Federer is not actually playing well (according to the official rules).
 - She therefore uses *e-* to make a weaker claim.
 - Crucially, note that both Imali and Maina have the same amount of visual information: they’re both watching the same tennis match. What differs is only the background knowledge that each speaker has.

4.4 Relativization to speaker’s awareness of his/her knowledge

- The analysis further predicts that the use of *e-* and *ga-* should reflect the speaker’s own judgement regarding their information state. That is, the choice of *e-* or *ga-* should be sensitive to whether the speaker “knows s/he knows.”
 - (21) shows that the speaker can use *ga-* if they falsely think that they are knowledgeable about the embedded proposition:
- (21) Context: Maina thinks he is very knowledgeable about rugby. There was a rugby game scheduled to happen at noon today, but something came up and it

got switched with an Australian Rules Football (AFL) game that was going to happen later today. Maina watches the game at noon and thinks it's rugby; he doesn't realize that it's actually AFL. Even though he doesn't understand the game he's watching, he thinks he does. He can felicitously say:

ga-ror-ek-a kuresia va-ken-a vurahe karono
 6-look-AC-FV like 2-play-FV well today
 'It looks like they are playing well today'

- The felicity of *ga-* in (21) is because the speaker is reporting the facts according to their epistemic state, not the actual world.
- Similarly, the speaker is limited to using *e-* if they falsely think that they are *not* knowledgeable about the embedded proposition:

(22) Context: Sira is knowledgeable about rugby, but not knowledgeable about AFL. There was an AFL game scheduled to happen at noon today, but something came up and it got switched with a rugby game that was going to happen later today. Sira watches the game at noon and thinks it's AFL; he doesn't realize that it's actually a rugby game. Even though he understands it well, he doesn't think he does. He can say:

- e-ror-ek-a kuresia va-ken-a vurahe karono*
 9-look-AC-FV like 2-play-FV well today
 'It looks like they are playing well today'
- # *ga-ror-ek-a kuresia va-ken-a vurahe karono*
 6-look-AC-FV like 2-play-FV well today
 'It looks like they are playing well today'

5 Conclusion and further puzzles

- We've argued that the Logooli morphemes *e-* and *ga-* introduce a choice function that combines with a universally quantified modal base and selects a subset of the worlds within this modal base.
 - The morphemes differ in the size of the subset they select.
 - They must combine with a verb that supplies a modal base.
 - Their interpretation is dependent on contextual factors such as the information state of the speaker and the group of individuals that the speaker "identifies" with.

- Our Logooli data supports RMD’s analysis of modality and evidentiality in St’át’imcets, and also indirectly supports the proposal that modality and evidentiality are not distinct categories.

5.1 Further puzzles

- Some verbs that introduce modal bases can occur only with one of the agreement morphemes:
 - The perception verbs *kufunya* ‘to smell/to taste’ and *kuholeka* ‘to feel’ are only compatible with *e-*, not *ga-*.¹¹
 - The emotive factive *kugaasa* ‘to be perfect’ can only combine with *ga-*.
- These morphemes are precluded when hyper-raising/copy-raising occurs. In these constructions, the only available reading is equivalent to *ga-* (i.e, the stronger reading).
- Why does Logooli use the class 6 and class 9 markers for this function? Similarly, what are the facts in the other Luyia languages, and in Bantu more generally? Do other languages use different noun class markers for this function, or have a smaller/greater number of these morphemes?

Thanks!

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¹¹The verb *kuholeka* ‘to feel’ is homophonous with the Logooli verb for ‘to hear.’

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6 Appendix I: Verbs that allow both types of agreement

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|----------------|--------------------------|
| kuholeka | ‘to be heard’ |
| kuroreka | ‘to appear, look (like)’ |
| kufaana | ‘seem’ |
| kumanywa | ‘to be shown’ |
| kuganagana | ‘to think’ |
| kusovera | ‘to believe’ |
| kuvoleka | ‘to be said’ |
| kuheenzerereka | ‘to be expected’ |
| kurotwa | ‘to be dreamed’ |
| kumooniyika | ‘to be whispered’ |
| kuhayahayiza | ‘to be doubted’ |
| kumanyekana | ‘to be known’ |
| kukominyika | ‘to be declared’ |
| kugenya | ‘to be surprising/odd’ |
| kuhangabangiza | ‘to be surprising’ |
| kuhogiza | ‘to be surprising’ |
| kwizukana | ‘to be startling’ |
| kurutiza | ‘to be important’ |
| kuvereriza | ‘to be saddening’ |
| kwenyeka | ‘to be wanted/should’ |
| kunyareka | ‘to be possible, likely’ |
| kudoka | ‘to be imperative/must’ |

Table 1: Logooli verbs that can appear with both types of expletive agreement.