

## Flavours of Samoan Modality: The Split between Epistemic and Root

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### 1 Introduction

In this paper, we present a first set of data to inform the description and analysis of the modal system in Samoan, an Oceanic language, based on data from original fieldwork.

**Preview:** Within the set of modal verbs, Samoan lexicalises force and encodes some restrictions on modal flavours, to the exclusion of epistemic possibility. Epistemic possibility, but not necessity, is expressed by one of a set of sentence-initial particles that encode different degrees of epistemic certainty.

#### A roadmap for this talk:

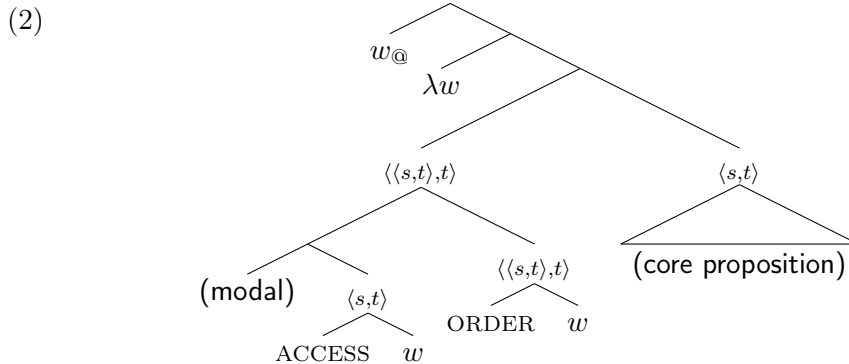
- 2 Background
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### 2 Background

#### 2.1 Dimensions of Modal Meaning

- Modal expressions can be characterised both descriptively and theoretically along the two dimensions of **force (possibility vs. necessity)** and **flavour (epistemic vs. several types of circumstantial or root modality)**. More formally (see Portner 2009, Hacquard 2011 and Matthewson 2016 for recent overviews), under analyses of English and German following Kratzer (1977, 1978, 1981, 1991), these dimensions translate to universal and existential quantification over the set of best of the accessible worlds, the favoured worlds. This set is determined partially by lexical restrictions as well as by context.

- (1) a.  $\llbracket (\text{possibility modal}) \rrbracket = \lambda a_{\langle s,t \rangle} \cdot \lambda o_{\langle \langle s,t \rangle, t \rangle} \cdot \lambda p_{\langle s,t \rangle} \cdot \exists w' \in \text{BEST}(a, o) : p(w') = 1$   
b.  $\llbracket (\text{necessity modal}) \rrbracket = \lambda a_{\langle s,t \rangle} \cdot \lambda o_{\langle \langle s,t \rangle, t \rangle} \cdot \lambda p_{\langle s,t \rangle} \cdot \forall w' \in \text{BEST}(a, o) : p(w') = 1$





- (7) a. Epistemic modality is a result of anchoring the domain restriction of the modal to the event of asserting a certain proposition, returning the propositions compatible with the content of that event.

EMPIRIC	ROOT
Temporal perspective = the utterance time (in the matrix case)	Temporal perspective determined by tense
Interpreted above aspect, hence no actuality entailments	Actuality entailments with perfective aspect
Interpreted above negation	Interpretation with respect to negation controlled by the syntax of negation
Embeddability restricted by the presence of the right type of event anchor	No restrictions on embeddability
Availability with different types of speech acts conditional on the content of the event	No restrictions imposed by the type of speech act

Table 1: Some Predictions of the Event-Relativity Approach

- (8) a. Yesterday, my friend John was playing a game. At the time, I didn't know if he won, but I bought a bottle of champagne just in case. I found out when I got home that John had lost. My spouse asked me why I had bought the champagne. I replied:
- b. *Because John might have won the game.*
- c. *Weil er das Spiel hätte gewinnen können.* – German –  
 because he the game has(CF) won can  
 'Because he might have won the game.'

They therefore suggest that modal auxiliaries are realised between tense and aspect and the temporal interpretation of the modal derived fully compositionally (see also Condoravdi 2002, Matthewson 2016). Under their account, the quirky behaviour of some English epistemic modal auxiliaries is a result of lexical idiosyncracies rather than a general property of epistemic modality.

## 2.2 The Samoan Language

- Samoan (ISO 639-3: smo) is a highly analytic verb-initial language from the Oceanic genus of the Austronesian language family. The language has a approximately 175,000 speakers on the Samoan archipel and estimate 450,000 users worldwide.

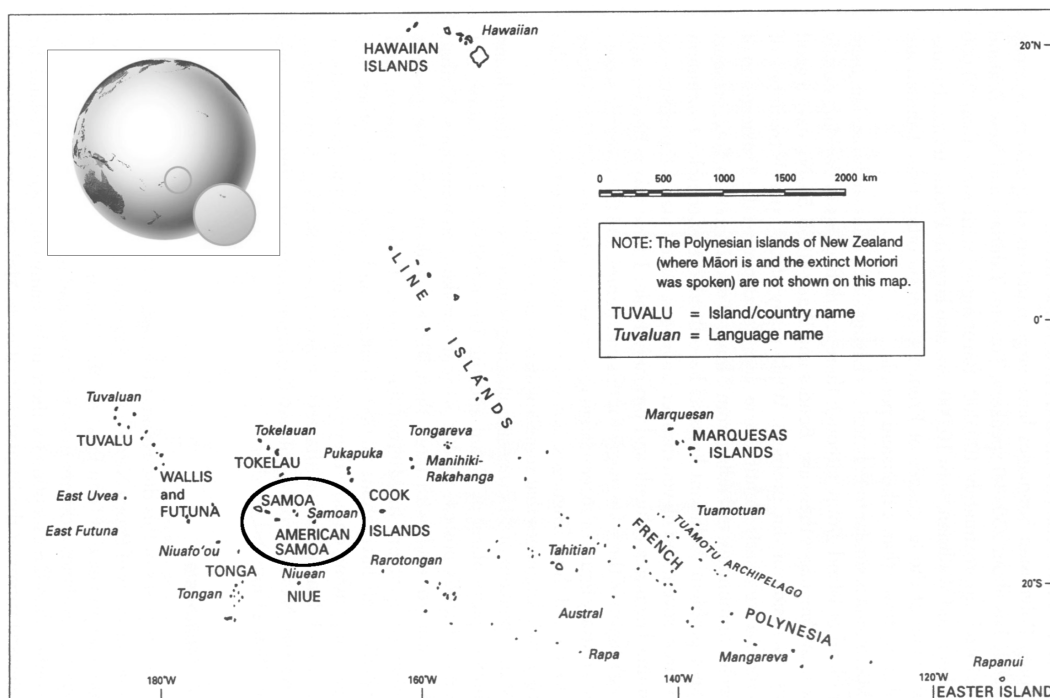


Figure 1: The Samoan archipel (Dragicevich & McLachlan 2009; Lynch 1998, p. 26)

- I have been working on the language since 2009. However, most of the data presented here were collected last year and are part of a larger project on gradability and modality across languages (see also Vander Klok & Hohaus 2020).
- Unless otherwise indicated, the data come from elicitation with native speakers relying on translation, acceptability judgment and targeted production tasks (see also Matthewson 2004, 2011 and Burton & Matthewson 2015).

## 3 The Samoan Modal System

### 3.1 The Modal Verbs

- We focus here on *mafa'i* ‘to be possible’ and *tatau* ‘to be necessary’. Morpho-syntactically, these modal expressions are verbs. Semantically, they are specified for both force and flavour, as we discuss in more detail below.
- Additional modal verbs (see also Mosel & Hovdhaugen 1992; Mosel & So’o 1997) include the deontic necessity verbs *sā* ‘to be prohibited’ and *taga* ‘to be allowed’ as well as the root necessity verb *ao* ‘to be necessary’, which seems to pattern with *tatau* ‘to be necessary’. Examples are in (9) to (11).

- (9) a. [A sign in a hotel:]  
 b. *E sā ona ulaula.*  
 TAM prohibited that smoke  
 ‘Smoking is prohibited.’

- (10) a. [On the restrictions on casinos in Samoa:]<sup>1</sup>  
 b. *E na o turisi e taga ona taaalo.*  
 TAM only FOC tourist TAM allowed that play  
 ‘Only tourists are allowed to play.’
- (11) a. Foreign passport holders need a temporary drivers’ license to drive in Samoa.  
 Your palagi friend wants to rent a car. So, you tell her the following.  
 b. *E ao ona fai sou TDL; e tusa ma le tulāfono.*  
 TAM necessary that make your TDL TAM regarding with the law  
 ‘You have to get your temporary drivers’ license; it’s the law.’
- Some remarks about the syntax of these expressions: They pattern with other verbs regarding their position with respect to the aspectual particle, adverbs like *toe* ‘again’ and negation, as illustrated (12) and (13). Note that *tatau* ‘to be necessary’ is interpreted above negation, as in (14).
- Both modal verbs take a sentential subject headed by *ona*, a property they share with temporal-aspectual verbs like *uma* ‘to be complete’ in (15) and *amata* ‘to begin’ in (16).
- (12) a. [Talking about direct international flight connections:]  
 b. *Sā mafai ona lele sa’o mai Los Angelese*  
 TAM(past.pfv) possible that fly direct from Los Angeles  
*aga’i i Faleolo, ‘ae ‘ua lē toe mafai.*  
 towards PREP Faleolo but TAM(inch) not again possible  
 ‘It was possible to fly direct from L.A. to Faleolo but it is no longer possible.’
- (13) a. [Warning signs in a child diagnosed with asthma:]  
 b. *Ua le toe taalo lelei.*  
 TAM(inch) not again play good  
 ‘He or she is no longer playing well.’  
 (Lit.) ‘He or she has not again played well.’
- (14) a. [Radio report about a decision by Auckland major Lilomaiava Phil Goff.]<sup>2</sup>  
 b. *E le tatau ona faataunuaina le Polyfest.*  
 TAM not necessary that accomplish the NAME  
 ‘Polyfest must not be held.’
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- (15) *‘Ua ‘uma [ona ‘ai le teine].*  
 TAM(inch) complete that eat the girl  
 ‘The girl has finished eating.’  
 (Lit.) ‘That the girl is eating is now finished.’  
 (Mosel & Hovdhaugen 1992, p. 587, no. (15.1))
- (16) a. [Information related to the new COVID-19 virus infection:]  
 b. *Afai ua amata [ona e ma’i], ...*  
 if TAM(inch) begin that you sick  
 ‘If you are starting to feel ill, ...’  
 (Lit.) ‘If its is beginning that you are sick, ...’
- We set aside here raising structures like in (17) and (18), where the subject of the embedded clause is promoted to the matrix clause (see also Chung & Seiter 1980).

<sup>1</sup> Galumalemana T.T. Autagavaia, “Faatu kasino i Samoa, suetupe mo atinae o taaloga,” *Samoa Times* 31st March 2010 (URL: <<https://tinyurl.com/turisi>>, accessed 14th July 2020).

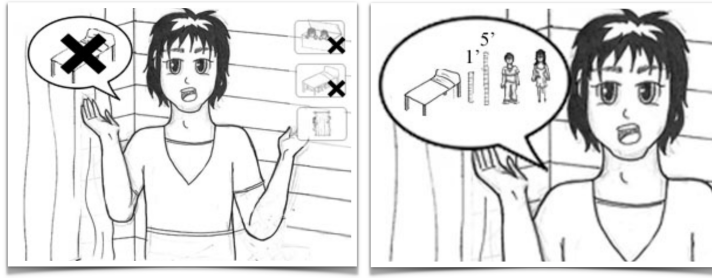
<sup>2</sup> “E le tatau ona faataunuaina le Polyfest,” *Radio Samoa Auckland* (URL: <https://www.radiosamoa.co.nz/e-le-tatau-ona-faataunuaina-le-polyfest-2020/>, accessed 17th March 2020).

- (17) a. [From an interview with a woman from the village of Le‘auva‘a:]<sup>3</sup>  
 b. *E tatau [e le malo]*  
 TAM necessary ERG the government  
*[ona toe mafaufau ile taugata ole soifuaga].*  
 that again consider PREP+the cost of+the living  
 ‘The government must reconsider the cost of living.’
- (18) a. *E mafai [ona alu Vela i le tifaga].*  
 TAM possible that go NAME to the cinema  
 ‘Vera may go to the cinema.’  
 b. *E mafai [e Vela] [ona alu i le tifaga].*  
 TAM possible ERG NAME that go to the cinema  
 ‘Vera may go to the cinema.’
- Along the two dimensions of modal meaning introduced above, these modal verbs lexically specify modal force, and the possibility modal *mafi* exhibits some restrictions regarding modal flavour. Evidence for a lexicalised distinction in modal force between possibility and necessity comes from examples such as (19) and (20).
- (19) a. [Two siblings discussing their mother’s plans for them for the next day:]  
 b. *E mafai ona mā asia le mā tināmatua.*  
 TAM possible that we visit the our grandmother  
 ‘We can visit our grandmother.’  
 c. *Ioe, e tatau ona mā asia le mā tināmatua.*  
 yes TAM necessary that we visit the our grandmother  
 ‘In fact, we have to visit our grandmother.’
- (20) a. [Rosa’s mother orders:]  
 b. *E mafai ona alu Rosa i le tifaga ma ana uo, ae*  
 TAM possible that go NAME to the cinema with her friend but  
*e tatau ona toe fo‘i Rosa i le fale i le tā o le valu.*  
 TAM necessary that return NAME to the fale PREP the beat of the eight  
 ‘Rosa may go to the cinema with her friends, but she must be home by 8pm.’
- With the past perfective aspectual marker *sā* (on which, see also Hohaus 2019 and Bochnak, Hohaus & Mucha 2019), we find actuality entailments.<sup>4</sup>
- (21) a. *Sā mafai ona ‘a‘au Pita mai Upolu ‘i Sava‘i.*  
 TAM(past.pfv) possible that swim NAME from Upolu to Savaii  
 ‘Peter was able to swim across the Apolima Strait.’  
 b. *He did it four times!*  
 c. *#Unfortunately, he never got around to it, and now he’s too old.*
- The compatibility with different types of circumstantial (or root) flavours is illustrated for *mafi* ‘to be possible’ in (22) to (24) and for *tatau* ‘to be necessary’ in (25) to (27).
- (22) a. Vela wants to rent a car for her family. At Samoana car rental, they show her a van, but she needs to make sure it’s big enough.  
 b. *E to‘afia tagata e mafai ona ofi i le ta‘avale?*  
 TAM HUM+many person TAM possible that fit PREP the car  
 ‘How many people can fit in this car?’

<sup>3</sup> Aruna Lolani, “E tatau e le malo ona toe mafaufau ile taugata ole soifuaga,” *Samoa Observer*, 16th March 2017 (URL: <https://www.samoobserver.ws/category/article/36877>, accessed 15th July 2020).

<sup>4</sup> To be more systematically tested across different modal flavours.

- (23) a. [John and Jodi are looking for a place to hide from the police.]<sup>5</sup>



- b. *E lē mafai ona tā lalafi i lalo o le moega:*  
 TAM not possible that we hide PREP below of the bed  
*E pu'upu'u tele.*  
 TAM small too  
 'We cannot hide under the bed; it is too small.'

- (24) a. [Talking about the languages someone does or does not speak.]

- b. *E lē mafai ona tautala fa'a Saina.*  
 TAM not possible that speak custom China  
 'She doesn't speak Chinese.'  
 (Lit.) 'That she speaks Chinese is not possible.'

- (25) a. [Discussing the possibility of Epe going abroad for university.]

- b. *Afai e fia maua se sikoasipi a Epe mo Niu Sila,*  
 if TAM want receive a scholarship of NAME for New Zealand  
*e tatau ona galue malōsi i le aoga.*  
 TAM necessary that work hard PREP the school  
 'If Epe wants to get a scholarship to New Zealand,  
 she must work hard in school.'

- (26) a. You are going to visit a friend in the hospital. When you enter the hospital, you stop at the information desk to inquire what room your friend is in. But the woman at the desk tells you that you can't visit your friend now because it's already 8pm! She says: "I'm sorry, the hospital regulations are very strict."<sup>6</sup>

- b. *E tatau ona tu'ua e tagata'asiasi le falema'i*  
 TAM necessary that leave ERG people+visit(PL) the hospital  
*i le tā o le ona.*  
 PREP the beat of the six  
 'Visitors must leave by six o'clock.'

- (27) a. [John and Jodi are looking for a place to hide from the police in a small cabin, and have exhausted all other options.]<sup>7</sup>

- b. *E tatau ona tā lalafi i tua o le ie fa'amalama.*  
 TAM necessary that we hide(PL) PREP behind of the cloth window  
 'We will have to hide behind the curtain.'

<sup>5</sup> TFS Working Group (2011), "On the Lam," *Totem Field Storyboards* (URL: <[http://totemfieldstoryboards.org/stories/on\\_the\\_lam/](http://totemfieldstoryboards.org/stories/on_the_lam/)>, accessed 10th August 2019).

<sup>6</sup> Based on Jozina Vander Klok (2014), "Modal Questionnaire for Cross-linguistic Use," Max-Planck-Institute for Evolutionary Anthropology, Typological Tools for Field Linguistics (URL: <[https://www.eva.mpg.de/lingua/tools-at-lingboard/pdf/Modal\\_Questionnaire\\_-\\_CrossLing\\_JVK.pdf](https://www.eva.mpg.de/lingua/tools-at-lingboard/pdf/Modal_Questionnaire_-_CrossLing_JVK.pdf)>, accessed 8th August 2019); see also Vander Klok (2014).

<sup>7</sup> TFS Working Group (2011), "On the Lam," *Totem Field Storyboards* (URL: <[http://totemfieldstoryboards.org/stories/on\\_the\\_lam/](http://totemfieldstoryboards.org/stories/on_the_lam/)>, accessed 10th August 2019).

- The possibility modal verb *mafi* is unacceptable in contexts that set up an epistemic interpretation, as is illustrated in (28) to (30). It is also not actively produced in storyboards that are designed to elicit epistemic modality.<sup>8</sup> In this respect, it patterns unlike the necessity modal verb *tatau*, which appears to allow for epistemic interpretations, as is illustrated in (31) to (33).

(28) a. You look at the sky, and it is very cloudy.

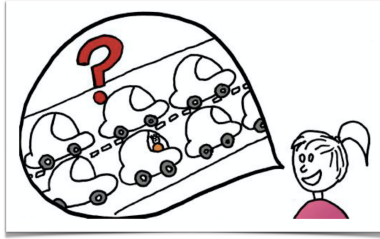
b. #*E mafi ona timu le afiafi.*

TAM possible that rain the evening

‘It might be raining this evening.’

Consultant’s comment: “You’re asking the person who is making the rain.”

(29) a. [Peter’s friends have organised a party for his birthday, but Peter is not there.]<sup>9</sup>



b. #*Oi, e mafi ona pisi le auala.*

EXCL TAM possible that busy the road

(Int.) “Well, the road might be busy.”

(30) a. Last night, Tina’s son Tasi woke up several times, and was restless. She feels his forehead, and it is very hot.

b. #*E mafi ona ma’i Tasi.*

TAM possible that sick NAME

(Int.) ‘Tasi might be ill.’

Consultant’s comment: “I think *mafi* doesn’t suit this sentence.”

(31) a. [The policeman looking for John and Jodi is certain where they are hiding because he has excluded all other possibilities he could think of.]<sup>10</sup>



b. *E tatau la ona i tua o le ie fa’amalama!*

TAM necessary then that PREP behind of the cloth window

‘They must behind the curtain then!’

<sup>8</sup> TFS Working Group (2010), “Mouse Story,” TFS Working Group (2011), “On the Lam,” TFS Working Group (2011), “Feeding Fluffy,” and Valerie Marshall (2013), “Late to the Party,” *Totem Field Storyboards* (URL: <<http://totemfieldstoryboards.org/>>, accessed 17th July 2020).

<sup>9</sup> Valerie Marshall (2013), “Late to the Party,” *Totem Field Storyboards* (URL: <<http://totemfieldstoryboards.org/>>, accessed 15th July 2020).

<sup>10</sup> TFS Working Group (2011), “On the Lam,” *Totem Field Storyboards* (URL: <<http://totemfieldstoryboards.org/>>, accessed 10th August 2019).



- (32) a. You walk through your village with your sister. You wonder whether your friend Sina and her family are at home. Their is music blasting from their fale, and the light is on.  
 b. *E tatau ona iai Sina i le fale.*  
 TAM necessary that PREP+PRN NAME PREP the fale  
 ‘Sina must be at home.’
- (33) a. You play a game where a green marble is hidden under one of three cups, which are blue, red and yellow. You check the blue and the yellow cup, and the marble is not there. You say:  
 b. *E tatau ona iai le mapu i lalo o le ipuinu lanumūmū.*  
 TAM necessary that have the marple PREP inside of the cup colour+red  
 ‘The marble has to be under the red cup.’

– There thus appears to be an expressive gap in the paradigm of modal verbs in the language when it comes to **epistemic possibility**.

### 3.2 The Epistemic Particles

- Epistemic possibility is encoded by means of the sentence-initial particle ‘*ātonu* ‘maybe’ in (34) to (36), which is offered as an alternative to *mafaī* ‘to be possible’ in all of the contexts above where the latter is unacceptable. It is also the strategy actively produced by consultants in production tasks that target epistemic modality.
- This particle is one of a group of what Mosel & Hovdhaugen (1992, p. 155) call sentence modifiers, which “indicate the speakers’ evaluation of what is said” (or their epistemic certainty). Other particles in that group include ‘*ai* ‘probably, perhaps’ in (37) and ‘*ailoga* ‘hardly, doubtful’ in (38).
- (34) a. [The police have followed John and Jodi to a small cabin in the woods.]<sup>11</sup>  
 b. ‘*Atonu* ‘o lo‘o lalafi i totonu o le pusa.  
 maybe TAM(ipfv) hide PREP inside of the box  
 ‘They might be hiding in the box.’
- (35) a. When you and your co-worker arrive back at work in the morning and you open the fridge in the café, you notice that it is not cold.  
 b. ‘*Atonu* sā pe le paoa anapō.  
 maybe TAM(past.pfv) the power last.night  
 ‘There might have been a power outage last night.’
- (36) a. You to switch on the old air conditioning in the shop but it is not responding.  
 b. ‘*Atonu* ‘o lo‘o leaga le ea malūlū.  
 maybe TAM(ipfv) bad the air cold  
 ‘Maybe the air conditioning is broken.’

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- (37) *O lo o fiafia Unn i lana ata,*  
 TAM(ipfv) happy NAME PREP the+POSS.3SG picture  
*ae ai o manao i ai Dag.*  
 but probably TAM(ipfv) want PREP PRN NAME  
 ‘Unn is happy about her picture, but Dag probably wants to have it, too.’  
 (Mosel & Hovdhaugen 1992, p. 156, no. (4.444), my glosses)

<sup>11</sup> TFS Working Group (2011), “On the Lam,” *Totem Field Storyboards* (URL: <[http://totemfieldstoryboards.org/stories/on\\_the\\_lam/](http://totemfieldstoryboards.org/stories/on_the_lam/)>, accessed 10th August 2019).

- (38) *Ailoga ua matou aai talu na tuua Apia.*  
 doubtful TAM(inch) we eat(PL) since TAM(past.pfv) leave Apia  
 ‘We have hardly eaten since we left Apia.’  
 (Mosel & Hovdhaugen 1992, p. 156, no. (4.446), my glosses)

– Syntactically, the particle ‘*atonu*’ must occur above TAM, as is shown in (39), and thus also above negation, as is illustrated in (40). Its **syntactic position** appears to be below sentence connectives like *ona* ‘because’ and ‘*ae*’ ‘but’, while focus movement is to a position below the particle, as is illustrated in (41). The particle is unacceptable in questions and *if*-clauses, as is illustrated in (42) and (43). It may be however be embedded under attitude verbs and verbs of saying, as in (44).

- (39) a. \**E ‘atonu ona ma’i Tasi.*  
 TAM maybe that sick NAME  
 (Int.) ‘Maybe Tasi fell sick.’  
 b. \**E ‘atonu ‘ua ma’i Tasi.*  
 TAM maybe TAM(inch) sick Tasi  
 (Int.) ‘Maybe Tasi fell sick.’  
 c. \**‘Ua ‘atonu ma’i Tasi.*  
 TAM(inch) maybe sick NAME  
 (Int.) ‘Maybe Tasi fell sick.’
- (40) a. [Talking about the plantation.]  
 b. \**E {lē/leai} ‘atonu ‘ua pula fuākoko.*  
 TAM NEG maybe TAM(inch) ripe pods.koko  
 (Int.) ‘It is not the case that the koko pods might be ripe now,  
 they most certainly are.’  
 c. \**‘Atonu e le’i pula fuākoko.*  
 maybe TAM not.yet ripe pods.koko  
 (Int.) ‘It is not yet possible that the koko pods are ripe.’  
 ‘Maybe the koko pods are not yet ripe.’
- (41) a. [From a flyer with information on a medical test.]<sup>12</sup>  
 b. *Ona atonu o le taimi muamua na tui ai...*  
 because maybe FOC the time first TAM(past.pfv) inject PRN  
 ‘Because maybe the first time that they were injected...’
- (42) a. [The police have followed John and Jodi to a small cabin in the woods.]<sup>13</sup>



- b. \**‘Atonu ‘o fea ‘o lo’o lalafi ai?*  
 maybe FOC where TAM(ipfv) hide PRN  
 (Int.) ‘Where could they be hiding?’

<sup>12</sup> “Suega Tiupakalini o le Pa’u [Tuberculin Skin Test],” *NSW Health* (URL: <<https://tinyurl.com/suega>>, accessed 11th July 2020).

<sup>13</sup> Based on TFS Working Group (2011), “On the Lam,” *Totem Field Storyboards* (URL: <[http://totemfieldstoryboards.org/stories/on\\_the\\_lam/](http://totemfieldstoryboards.org/stories/on_the_lam/)>, accessed 10th August 2019).

- c. \**O fea ‘atonu ‘o lo‘o lalafi ai?*  
 FOC where maybe TAM(ipfv) hide PRN  
 (Int.) ‘Where could they be hiding?’
- (43) a. [Giving advice to Sitasia, who has agree to sit a yet-to-be-identified pet.]<sup>14</sup>  
 b. \**Afai ‘atonu ‘o se gata Fluffy, e sili atu ona ‘e vili iā Pati.*  
 if maybe TAM a snake NAME TAM great more that you ring to NAME  
 (Int.) ‘If there is a possibility that Fluffy is a snake, you should call Patrick.’
- (44) a. [Discussing different predictions for the weather.]  
 b. *Sa fai mai Pita ‘atonu e timu le aoauli.*  
 TAM(past.pfv) say NAME maybe TAM rain the afternoon  
 ‘Peter said that it might rain this afternoon.’  
 c. *Na mafaufau Malia atonu e timu.*  
 TAM(past.pfv) consider NAME maybe TAM rain  
 ‘Mary considered that it might rain.’

– Unlike with the modal verbs, the **temporal perspective** must be the utterance time.

- (45) a. [Siatasia explaining why she bought carrots for the yet-to-be identified pet she is supposed to take care of while it’s owner is on vacation.]<sup>15</sup>  
 b. #*‘Atonu ‘o se bani.*  
 maybe FOC INDEF.SG rabbit  
 (Int.) ‘It might have been a rabbit.’  
 ‘Maybe it’s a rabbit.’

– In addition to the modal verbs, Samoan has a distinct set of epistemic markers with a high syntactic positions above the temporal-aspectual layer of the clause.

		FORCE	
		necessity	possibility
FLAVOUR	epistemic	modal verb <i>tatau</i> ‘to be necessary’	sentence particle <i>‘atonu</i> ‘maybe’
	circumstantial		modal verb <i>mafai</i> ‘to be possible’

Table 2: Dimensions of Meaning in the Expression of Modality in Samoan

## 4 Discussion

– **The division of labour in the grammar of modality:** The event-relativity and the standard approach to modality differ as to the grammatical ingredients they need to assume to derive the pattern in Table 2.

		FORCE	
		necessity	possibility
FLAVOUR	epistemic	Two different LF positions for some modal verbs, right above the VP and above the TP.	Sentence particles restricted to the high position.
	circumstantial		Restricted lexically to circumstantial modality.

Table 3: Assumptions under the Event-Relativity Approach

<sup>14</sup> Follow-up elicitation based on TFS Working Group (2011), “Feeding Fluffy,” *Totem Field Storyboards* (URL: <[http://totemfieldstoryboards.org/stories/feeding\\_fluffy/](http://totemfieldstoryboards.org/stories/feeding_fluffy/)>, accessed 8th August 2019).

<sup>15</sup> Based on TFS Working Group (2012), “Feeding Fluffy,” *Totem Field Storyboards* (URL: <[http://totemfieldstoryboards.org/stories/feeding\\_fluffy/](http://totemfieldstoryboards.org/stories/feeding_fluffy/)>, accessed 8th August 2020).

		FORCE	
		necessity	possibility
FLAVOUR	epistemic	One syntactic position for all modal verbs, no lexical restrictions on flavour for some.	Restricted syntactically to a position above TP.
	circumstantial		Restricted lexically to circumstantial modality.

Table 4: Assumptions under the Standard Approach

- The two approaches differ as to the predictions for the temporal interpretation of epistemic modal verbs in Samoan. Under the event-relativity approach, epistemic necessity in Samoan should only be compatible with a present **temporal perspective** in the matrix case (as it is anchored to the utterance event). Preliminary data suggest that this prediction is not borne out.

- (46) a. Yesterday, you walked by Sina’s fale and the light was on and her shoes were in front of the house. You report what you thought back then, even though you later learned that the shoes belonged to Sina’s sister.
- b. *Sā tatau ona iai Sina i le fale.*  
TAM(past.pfv) necessary that PREP+PRN NAME PREP the fale  
‘Sina should have been at home.’

- Technical details of the analysis aside, is the absence of **epistemic possibility** readings for modal verbs and its realisation as a distinct syntactic category really just a lexical coincidence? Or does it tell us something more about the nature of epistemic necessity versus possibility?

## Abbreviations Used in Glosses

CAUS = causative prefix, CF = counterfactual, ERG = ergative, EXCL = exclamative, FOC = focus marking, HUM = human, inch = inchoative, INDEF = indefinite determiner, ipfv = imperfective, PART = particle, pfv = perfective, PL = plural, POSS = possessive pronoun, PREP = preposition, PRN = pronoun, SG = singular, and TAM = temporal-aspectual marker. All examples in their original orthography, despite variation in the use of diacritics.

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