Kroeger, Paul. 2024. Frustratives in St'át'imcets vs. Kimaragang: parameters of variation. *Glossa: a journal of general linguistics* 9(1). pp. 1–35. DOI: https://doi.org/10.16995/glossa.10162



OPEN Library of Humanities

Frustratives in St'át' imcets vs. Kimaragang: parameters of variation

Paul Kroeger, Dallas International University, US; SIL Intl., US, paul_kroeger@diu.edu

Markers of the FRUSTRATIVE (non-realization of an expected outcome) often have a variety of uses. The Kimaragang frustrative *dara* also marks various related functions such as "discontinuous past", "action narrowly averted", frustrated intention or desire, and counterfactual conditionals. Davis & Matthewson (2022) describe a similar but not identical range of uses for the frustrative marker *séna7* in St'át' incets, and propose that the core meaning of this marker involves a type of epistemic modality. They further propose that their analysis can be extended to Kimaragang *dara*, suggesting that observed differences of usage may be due to differences in the tense-aspect systems of the two languages.

This paper argues that the Kimaragang frustrative is different from *séna7* in two respects: (1) the nature of the "frustrated expectation" inference, and (2) type of modality (epistemic vs. circumstantial). Frustrated expectation is lexically entailed in St'át' imcets, but Kimaragang *dara* entails only that the expected outcome cannot be asserted to be true at the time of speaking, with frustrated expectation arising as a pragmatic inference in contexts where it is reasonable to expect the speaker to know the actual outcome. Davis & Matthewson show that *séna7* is purely epistemic in nature: it marks an unexpected correlation between two propositions, which need not belong to a single chain of events. Kimaragang *dara* is circumstantial in nature: it marks an initial situation whose expected outcome within the normal course of events is so far unrealized. It can be used to describe counterfactual situations, which are not epistemically accessible.

Glossa: a journal of general linguistics is a peer-reviewed open access journal published by the Open Library of Humanities. © 2024 The Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC-BY 4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited. See http://creativecommons.org/licenses/by/4.0/. **3OPEN ACCESS**

1 Introduction

One of the major challenges in cross-linguistic grammatical comparison is the fact that the same grammatical function may be marked in two different languages by morphemes whose underlying meaning is actually quite different. For example, a grammatical morpheme in one language may encode, as part of its lexical semantic content, a meaning that arises in a different language as a pragmatic inference (conversational implicature). Comrie (1985: 26–28) cites the example of "sequential" tense/aspect markers:

Grammars of many languages claim that the language in question has a special form for indicating situations that occur in sequence, or for distinguishing sequences of situations from simultaneously occurring situations. However, in nearly every case, it is impossible to tell from the limited range of examples given whether the interpretation of sequentiality is indeed part of the meaning of the form in question, or whether this is just an implicature following from a basically aspectual distinction. This is one of the deficiencies of descriptive work in this domain. More generally, the failure to distinguish between meaning and implicature is one of the main problems in working out an adequate characterization of tenses.

An analysis by Cable (2017) provides another example. Cable argues that both the "discontinuous past" (cessation) and frustrative functions in Tlingit arise as conversational implicatures triggered, in appropriate contexts, by a morpheme whose semantic content is simply optional past tense. Cable further suggests that this may be the source of these functions in all languages where they are reported. However, Davis & Matthewson (2022: fn. 5) point out that the frustrative particle *séna7*, which is associated with these functions in St'át'imcets (=Lillooet Salish), is quite different: "Unlike the [Tlingit] decessive, *séna7* does not contain past tense semantics... Moreover, the contribution of *séna7*, which has to do with unexpectedness rather than pastness, is not cancelable and therefore is not a conversational implicature."

So similarity of usage or function does not necessarily imply similarity of meaning. Conversely, difference of usage does not necessarily imply difference of meaning. Davis & Matthewson note that the range of uses of the frustrative in St'át'imcets is somewhat different from that of the frustrative *dara* in Kimaragang (Malayo-Polynesian, NE Borneo), as described by Kroeger (2017). Nevertheless, they propose that the frustrative particles in the two languages may have essentially the same semantic content:

However, we suspect that *dara* may in fact be fully compatible with our analysis of *séna7*, which would be an interesting result, as St'át'imcets and Kimaragang are unrelated languages. We propose that a unified analysis can be given for *séna7* and *dara* while still capturing the apparent empirical differences between the two frustratives. (2022: 1385)

They suggest that the observed differences in usage are attributable to independent differences in the tense/aspect systems of the two languages.

A widely-cited definition of the frustrative comes from Overall (2017), in his discussion of the typology of frustratives in Amazonian languages. He defines the frustrative as "a grammatical marker that expresses the non-realization of some expected outcome implied by the proposition expressed in the marked clause."

This paper explores Davis & Matthewson's conjecture that the analysis they propose for the frustrative in St'át'imcets can be applied to the Kimaragang frustrative as well. There is good reason to believe that the kind of approach proposed by Davis & Matthewson for *séna7* will also work for Kimaragang *dara*. However, I argue that the meanings of the two particles differ in two significant respects: (a) the type of modality, and (b) the nature of the "frustrated expectation" inference. Whereas St'át'imcets *séna7* invokes a purely epistemic modality, Kimaragang *dara* invokes a type of root or circumstantial modality.¹ Whereas the component of failed expectation is lexically specified by St'át'imcets *séna7*, Kimaragang *dara* lexically specifies only that the expected outcome cannot be asserted to be true at the time of speaking. Non-realization arises as a pragmatic inference in contexts where the speaker can be expected to know the outcome.

Davis & Matthewson propose that the kind of expectation relevant to the interpretation of *séna7* is based on epistemic necessity: what kinds of conclusions can be drawn, based on the available evidence? They summarize their proposal informally as follows (2022: 1337):

(1) **St'át'imcets frustrative:**

séna7 felicitously applies to a proposition p only if (i) p is true, and (ii) there is a salient true proposition q and the speaker did not expect p and q to both be true.

Notice that Davis & Matthewson formulate the element of frustrated expectation in terms of the truth of an unexpected correlate q. We will see why this is necessary in section 5. In terms of Overall's definition, this would be equivalent to saying that *not* q was expected but failed to occur.

I argue below that in Kimaragang, the relevant expectations are circumstantial, rather than epistemic, in nature: what outcomes would normally occur, given certain initial conditions? We might summarize the proposal as follows:

(2) Kimaragang frustrative:

dara felicitously applies to a proposition p only if (i) p is true, and (ii) in a typical context where p is true at a certain time, and where the normal course of events is followed as closely as possible, a particular outcome q would follow; but in the situation under discussion, q does not follow, or at least is not known to be true at the time of speaking.

¹ I am using the term MODALITY in its narrow sense, to refer to "a category of linguistic meaning having to do with the expression of possibility and necessity" (von Fintel 2006: 20), rather than the broader sense which defines it as a marker of speaker's attitudes.

Davis & Matthewson argue that unexpectedness is part of the conventional, linguistically encoded meaning of the frustrative particle, but not part of its truth-conditional meaning: "*Séna7* ... has no effect on at-issue truth conditions (*séna7*(p) entails p)" (p. 1337). In this respect I believe that Kimaragang is similar to St'át'imcets.

Much of the data for this study (including the examples presented below which are tagged "kim-dict") comes from example sentences in a dictionary database compiled by Jim Johansson. These sentences were composed by three native speakers of Kimaragang who grew up in the plains south of Tandek, Kota Marudu. Examples which come from my own field notes are tagged only with the date on which they were elicited. Sources for other examples, e.g. those taken from natural discourse, are provided in footnotes or in the body of the text. Most of the elicited examples reflect the judgments of my primary consultant, Mr. Janama Lantubon. For the most part the elicitation involved modifications of naturally occurring sentences, though occasionally I asked for translations of a Malay sentence.

We begin in section 2 by examining some Kimaragang examples which illustrate (a) the various functions of *dara* (sec. 2.1), and (b) the contribution of *dara* to the meaning of the sentence in various contexts (sec. 2.2). Section 3 provides a more rigorous statement of Davis & Matthewson's analysis of *séna7* and shows how this analysis can be used to account for various Kimaragang examples. Section 4 presents evidence to support the claim that the failed expectation inference, which is entailed in St'át'imcets, is a pragmatic implicature in Kimaragang. Section 5 presents evidence for claim that the modal "flavor" of the frustratives in the two languages is different: epistemic in St'át'imcets, but circumstantial in Kimaragang.

2 Functions of the frustrative in Kimaragang

2.1 Examples of the most common uses

In addition to the core semantic function of the frustrative ("non-realization of some expected outcome"), Overall also identifies a number of "extended" (i.e., secondary) functions that are frequently expressed by frustrative markers. He shows that within his sample of Amazonian languages, different sets of functions are attested in different languages. (This is what we would expect if the core semantics of the frustrative marker varies somewhat from language to language.) A number of these secondary functions are also associated with the Kimaragang frustrative, as illustrated in this section.

The Kimaragang examples in (3a,c) illustrate the classic frustrative pattern: actions which are performed but do not have the desired or expected effect, i.e., actions performed in vain. Example (3b) is very similar except that the *dara* clause describes a state rather than an event. As Overall observes, frustratives often occur in biclausal structures in which the unmarked clause expresses either an explicit statement of non-realization, as in (3a), or the cause of the non-realization, as in

(3b,c). (In the following examples I will use *init* to represent the proposition asserted in the *dara* clause, which corresponds to the initiating circumstance, and *exp* to represent the expected outcome.)

(3) **"Frustrative proper"** (expected outcome not realized)

- a. N-o-sii-Ø ku no dara it = tasu nga' n-iit-an oku = i'.
 PST-NVOL-say.*sii*-OV 1SG already FRUST NOM = dog but PST-bite-DV 1SG = EMPH 'I said *Shii!* to the dog (in vain), but I got bitten anyway.' [11Sep15] *init* = I said *Shii!* to the dog (= English *shoo!*); *exp* = the dog will leave me alone and not bite
- b. Mikeengin okoy dara nga', i=tama dat=tongondu ot AV.RECIP.love 1PL.EX.NOM FRUST but NOM=father GEN=woman NOM amu eengin dogon. NEG like 1SG.ACC
 'We love each other but her father is the one that doesn't like me (so we can't get married).' [Kim-dict] *init* = we love each other; *exp* = we will get married
- c. Naka-sambat oku dara dit = orang.tua nga' magaago yalo.
 PST.NVOL.AV-meet 1SG.NOM FRUST ACC = head.man but hurry 3SG.NOM 'I managed to meet with the village chief but he was in a hurry (so I didn't get to talk with him much).' [4Aug15] *init* = I met with the village chief; *exp* = I will get his help with some unspecified matter

An important secondary function of the frustrative is the DISCONTINUOUS PAST, or CESSATIVE, which indicates that a situation was true in the past but does not persist into topic time (Plungian & van der Auwera 2006). In Kimaragang, this use of *dara* occurs primarily with stative predicates, as illustrated in (4).

(4) Cessative/discontinuous past

- a. Waro dara siin ku nga' n-i-baray ku dot=tutang.
 exist FRUST money 1SG.GEN but PST-IV-pay 1SG.GEN ACC=debt
 'I did have some money but I used it to pay off my debt.' [Kim-dict] *init* = I had some money; *exp* = I will still have the money
- Limo okoy dara miobpinee, tolu po tu' duwo ot five 1PL.EX.NOM FRUST siblings three still because two NOM lisat.

slip.through.cracks

'There were five of us siblings, but only three are still here; two have "slipped through the cracks" (i.e., have passed away).' [Kim-dict] *init* = there were five of us siblings; *exp* = there will still be five of us c. Ogumu dara tuwa dat=mangga di=Soyinsin nga' m-in-(p)upor kikiawi. much FRUST fruit GEN=mango GEN=Soyinsin but AV-PST-cast.fruit all 'There was a lot of fruit on Soyinsin's mango tree, but they all fell off before they got ripe.' [Kim-dict] *init* = there was a lot of fruit on Soyinsin's mango tree; *exp* = Soyinsin will harvest a good crop of mangoes

Overall combines into a single functional category the "INCOMPLETIVE" use, marking an event which is begun but not completed, and the AVERTIVE (or "Action Narrowly Averted"; Kuteva 1998; 2000), which marks an action that was on the verge of happening but didn't. He points out that these two uses are sometimes difficult to distinguish, e.g. 'about to fall' vs. 'started to fall'. Notice that the avertive reading involves interpreting the non-past verb form as prospective aspect ('about to X'). (There is no morphological marker for prospective aspect in Kimaragang.) As discussed in section 3, I take this to be a kind of coercion effect.

(5) Incompletive

a. K<in>ibit-Ø dara dialo i=tanak ku nga', rumosi i=tanak ku.
<PST>hold.in.lap-OV PRTCL 3SG NOM=child 1SG but afraid NOM=child 1SG
'She (tried in vain to) hold my child in her lap, but the child was afraid.' [Kim-dict] (the attempt was initiated but was unsuccessful; the child never actually reached the lap)

init = she began to take my child into her lap; exp = the child will sit in her lap

K<um>orop no dara it=pilat dialo, naka-raa kembagu.
 AV>scab COMPL FRUST NOM=wound 3SG PST.AV.NVOL-blood again
 'His wound was beginning to heal/form a scab, but then it started bleeding again.'
 [Kim-dict]

init = the wound was beginning to heal; exp = the wound will continue to heal

(6) **Avertive** (= "action narrowly averted")

a.O-liwandara'ay²it = kuritakusid = sokid, nga'NVOL-fallFRUSTNOM = car1SG.GENDAT = hillbutn-i-bontolkusid = pampangtagayo.PST-IV-block1SG.GENDAT = rockbig'My car was about to fall down the hillbut I ran it into a big rock.' [Kim-dict]init = My car was about to fall down the hill;exp = My car fell down the hill

² *dara'ay* is a variant, possibly emphatic, form of *dara*. The factors which determine its occurrence require further investigation, but impressionistically it seems to be used primarily to express the incompletive, avertive, and frustrated intention uses, but seldom for actions done in vain or discontinuous past.

b. Iit-an oku no dara da = tasu nga' a = tanak po = ot nokoponii.
bite-DV 1sg COMPL FRUST GEN = dog but NOM = child FOC = NOM AV.PST.say.*sii* 'I *was about to be* bitten by the dog, but the child said "*Shii*!". [Kim-dict] *init* = I was about to be bitten by the dog; *exp* = I got bitten by the dog

Overall treats statements of frustrated intention as falling within this same category. Like the avertive reading, frustrated intention derives from prospective aspect: when a volitional action is described using prospective aspect (e.g., 'about to eat'), it is often interpreted as a statement of intention. The use of *dara* to express frustrated intention is quite common in Kimaragang.

(7) Frustrated intention

- Tila'ay di=tusing i=pinggan pinangakan ku a. lick.dv.atemp gen = cat NOM = plate IV.pst.eat 1SG.GEN dot mangakan oku po dara. COMP Av.eat 1sg.nom yet FRUST 'The cat licked the plate that I ate from, when I still intended to eat some more.' [Kim-dict] *init* = I intended to eat some more; exp = I ate some more
- b. Amu ku dara onuw-on it = siin n-i-taak dialo nga', NEG 1SG.GEN FRUST take-OV NOM = money PST-IV-give 3SG but n-i-jojol dialo.
 PST-IV-force 3SG
 'I would not have taken the money he gave me, but he forced it on me.'³ [Kim-dict] *init* = I did not intend to take the money; *exp* = I did not take the money

Overall lists seven languages in his Amazonian sample set (out of a total of 54 languages) that use the frustrative to mark counterfactual conditionals. Kimaragang *dara* shares this function as well.⁴ As these examples illustrate, *dara* in counterfactual conditionals can occur either in the antecedent (conditional clause), as in (8b), or in the consequent (main clause), as in (8a).⁵ This appears to be the only use of *dara* in which the particle can potentially occur in either clause without changing the meaning of the sentence. Some other discourse-type particles in Kimaragang are similar to *dara* in this respect: they make the same contribution to the meaning of the sentence whether they occur within the main clause or within a subordinate clause. In

³ As discussed in sec. 3, the frustrative always takes scope over clause-level negation; see also Kroeger (2017).

⁴ It appears that *dara* is not always obligatory in counterfactual conditionals. If *dara* is omitted in (8b), for example, the basic meaning of the sentence does not change, but it is felt to convey a stronger sense of complaint, whereas the original with *dara* is merely a statement of regret.

⁵ *Dara* normally occurs within the antecedent (protasis), but I have found a few natural examples where it occurs within the consequent (apodosis), as in (8a). However, when I tried to shift *dara* from the antecedent to consequent in a naturally occurring counterfactual conditional, the resulting sentence was rejected by my consultant. More work is needed to determine the conditions under which the particle may occur within the consequent clause.

light of this fact, it seems plausible to assume that *dara* takes scope over the whole conditional sentence, as suggested by an anonymous reviewer.

(8) Counterfactual conditional

- a. Ong n-o-guring-Ø no koniab ino. a-tanam-an no PST-NVOL-plow-OV COMPL yesterday that(NOM) NVOL-plant-DV COMPL if do=paray benoy dara. ACC = rice today FRUST 'If that (field) had been plowed yesterday, it could have been planted with rice today.' [Kim-dict] *init* = if the field was plowed yesterday, it can be planted with rice today; exp = the field can be planted with rice today
- b. (from draft translation of John 11:21) Context: Jesus arrives at the house of Lazarus several days after Lazarus has died. Martha, the sister of Lazarus, speaks to Jesus:
 O Tuan, ong siti Ko no dara tiya diri, andang amu=i' matay oh sir if here 2SG COMPL FRUST time that surely NEG=EMPH die it=tobpinee ku.
 NOM=sibling 1SG.GEN

'Oh sir, if you had been here at that time, my brother would surely not have died.' init = if you are here, my brother does not die; exp = my brother does not die

It is not immediately obvious how to derive the counterfactual function from the definition of *dara* proposed in (2). It may ultimately be necessary to treat this function as a polysemous sense of *dara*, but for the purposes of this paper, I will tentatively assume that when *dara* occurs in a conditional construction, the relevant outcome is (by convention?) identified with the consequent (apodosis) of the conditional. Under this assumption, a sentence of the form "If A then B *dara*" asserts that the conditional statement *If A then B* is true, and (in most contexts) implicates that *B* is false. By the rule of *modus tollens*, this would imply that *A* is also false, giving rise to the counterfactual interpretation.

In contexts where the implicature that B is false does not arise, we would predict a hypothetical reading: the truth of B cannot be asserted at the time of speaking. Consistent with this prediction, it turns out that *dara* can sometimes occur within a hypothetical conditional, although such examples are rare. Kroeger (2017) indicates that the hypothetical reading for (9) is more prominent, but the counterfactual reading is also possible, depending on context.

(9) Ong a-sawak-Ø no i=sada sid=parik, ki-rinapa tokow dara obo.
if NVOL-scoop-OV COMPL NOM=fish DAT=ditch EXIST-viand 1PL.INCL OPT VOC
'If we scooped the fish out of that ditch, we would have some meat to eat with our rice.' (or, possibly, 'If we had scooped... we would have had...') [Kim-dict; Kroeger 2017]

Overall describes an EVALUATIVE function, in which the frustrative marker is used to indicate that the described situation is unsatisfying, disappointing, or annoying to the speaker, even in contexts where there is no sense of unrealized expectation. This usage seems to be fairly widespread among the languages in his sample, but (so far) is not attested in Kimaragang.⁶

On the other hand, the Kimaragang frustrative is used in some ways that are not mentioned by Overall. The most productive of these is the optative/desiderative function. In most examples of this type the frustrative particle *dara* reinforces the meaning of a lexical predicate or derivational morpheme which expresses the optative or desiderative meaning, as illustrated in (10a-b). However, it is also possible for *dara* to function as the only marker of optative or desiderative meaning, as seen in (10c). The presence of *dara* in these examples marks them as being hypothetical. Sentence (10a) is judged to be simply an expression of the speaker's opinion ("Wouldn't it be nice if..."), whereas the same sentence without *dara* is heard as a definite suggestion that something be done. Sentence (10c) is heard as an expression of the speaker's desire or hope, which may or may not be fulfilled, whereas the same sentence without *dara* is heard as a statement of intention ('I will borrow his video machine'), as if the speaker has a definite plan to borrow the device. The desiderative prefix *ti*- cannot be used to express a definite plan, and as a result sentence (10b) sounds unnatural if *dara* is omitted.

(10) **Optative/desiderative**

- a. Awasi dara ong o-winsil-an no ilot jonjila.
 good FRUST if NVOL-lock-DV COMPL that(NOM) window
 'It would be good if a latch was installed on that window.' [Kim-dict]
- b. Ti-pomoli oku **dara** da=ringkat dilo' owo, poongolutuan ku. DESID-AV.buy 1SG.NOM FRUST ACC=layered.dish that VOC place.to.carry.food 1SG.GEN 'I'd like to buy that layered food carrier, to carry my lunch in.' [Kim-dict]
- c. Mongolos oku dara dit=widio dialo.
 Av.borrow 1sg FRUST ACC=video 3sg
 'I would like to borrow his video machine.' [Kim-dict]

The use of *dara* to mark desires is discussed in more detail below. The key idea is that when a volitional agent expresses a desire to do something within his power, under normal circumstances this will create an expectation that the action will in fact be carried out.

As illustrated in examples (11a-b), *dara* also functions as a politeness marker which makes a request less coercive. This use may well have developed as a conventionalized statement of

⁶ Some of the examples that Davis & Matthewson (2022) present for St'át'imcets *séna7* do seem to express dissatisfaction or disappointment, in addition to expressing the core function of *séna7* which is unexpected co-occurrence.

frustrated desire, e.g. in example (11a): 'I would like to get you to bring me some tobacco *dara*, (but I am too shy to ask)'.

- (11) **Polite request**
 - a. Ø-Po-owit oku dara dikaw do=sigup.
 AV-CAUS-bring 1SG.NOM FRUST 2SG ACC=tobacco
 'Please bring me a little tobacco.' [Kim-phrase book]⁷
 (lit: 'I cause you to bring tobacco dara.')
 - b. Ki-sawak kow oy, mongolos oku dara.
 EXIST-scoop 2PL.NOM Q AV.borrow 1SG.NOM FRUST
 'Do you (PL) have a fish scoop? I'd like to borrow it.' [Kim-dict]

Examples (11a-b) with *dara* are interpreted as polite requests, but if *dara* is omitted they are interpreted as orders or demands: the addressee is not free to say "No". My consultant used the Malay phrase *tidak boleh tidak* 'cannot not (do it)' to express the force of these utterances without *dara*. Hale (1969: 206) notes a very similar "polite desiderative" use of the Tohono O'odham frustrative particle *cim*. Sharon Estioca and Bill Hall (p.c.) inform me that the Subanon frustrative marker *bosia* also has this function.

Finally, *dara* occasionally seems to function as a marker of non-universality, indicating that the proposition asserted is not in fact true for all the members of a relevant topic set. This function is illustrated in (12a-b):

(12) Non-universality

a. Context: Folktale;⁸ a poor and homely young man has rescued a princess from a wild elephant, but seven wealthy and handsome suitors each claim to have done this. The king gives a feast lasting seven days, planning for his daughter to marry one of the suitors on the 7th day. When the time comes, the princess asks that everyone be invited to perform a traditional dance before she is married. Then she says to her father:

nokeegolnodarakikiawi ino, nga',AV.PST.danceCOMPLFRUST allthat but'Yes, all those people have danced dara, but...'i anak-anak po ot aso sino... it tatanak silo' it tarara'at.'the young man is not here... that poor homely youth.'

b. (from a draft translation of the Gospel of John, chapter 13) Context: Jesus is speaking to his disciples, knowing that one of them would betray him:
Opulang kow no dara nga' okon.ko' kikiawi po dikoo ot opulang. clean 2PL.NOM COMPL FRUST but NEG all FOC 2PL NOM clean 'You(PL) are already clean dara, but not all of you are clean.'

⁷ Kroeger & Johansson (2013).

⁸ https://www.kimaragang.net/sites/www.kimaragang.net/files/uploads/F010-KQR%5B1%5D.pdf.

2.2 The contribution of dara

As mentioned in section 1, I follow Davis & Matthewson in arguing that the "frustrated expectation" meaning associated with *dara* is "not at issue"; it does not affect the truth conditional meaning of the clause in which it occurs. Indeed, for some examples, such as (3a) and (3c), leaving *dara* out appears to make only a subtle difference to the meaning of the sentence, without reducing its naturalness or acceptability. This is not true in all cases, however.

My consultant states that example (3b) ('We love each other *dara* but her father doesn't like me') clearly implies that the couple does not plan to marry (or at best that the marriage plans are on hold). If *dara* is omitted, however, it suggests that the couple does plan to marry in spite of the father's opposition. My consultant says that this second version is fully grammatical, but it strikes him as something no one in that culture would ever say. Notice that this difference in meaning is not truth-conditional. The at-issue propositional content is the same in both versions: 'We love each other and her father doesn't like me.'

For discontinuous past examples like those in (4), *dara* is strongly expected. Omitting *dara* does not typically seem to affect the meaning of the sentence but does degrade naturalness. For example, my consultant says that (4c) ('There was a lot of fruit on Soyinsin's mango tree *dara*, but they all fell off before they got ripe.') is perfect; but if *dara* is omitted, the sentence would be only marginally acceptable. Similar judgments are reported for the "Action Narrowly Averted" usage illustrated in (6).

The presence of *dara* does affect the interpretation of the sentence in example (7a), which literally says: 'The cat licked the plate that I ate from, when I still eat *dara*.' As discussed in more detail in section 3.2, the atemporal verb form in the first clause is used here in its "narrative tense" function (Kroeger 1991), which establishes a topic time in the past for the sentence as a whole. In this context the non-past verb in the *dara* clause normally gets a prospective aspect reading ('when I was still about to eat more' or 'when I still intended to eat some more'). The sentence is interpreted as describing a situation where the speaker got up and left his plate for some reason, planning to return and continue eating. The cat licked the plate while he was gone. When *dara* is absent, however, prospective aspect is disfavored, and the most natural interpretation of the non-past verb form *mangakan* 'eat' is 'action in progress': the cat licked the plate that in this example the verb *mangakan* 'eat' occurs within a circumstantial adverbial clause, where the non-past verb form can have a relative present tense interpretation to indicate simultaneity with a past event.

In other examples involving the frustrated intention usage, e.g. (7b), omitting *dara* results in an unnatural or unacceptable utterance. Without *dara*, the first clause in (7b) is most naturally interpreted as a simple statement of present intention ('I will not take the money he gave me'),

but the past tense verb form in the second clause seems to require a topic time in the past for the sentence as a whole, and renders the sentence incoherent. We will discuss the role of tense and aspect in the interpretation of *dara* in more detail in section 3.2.

Dara can sometimes occur in monoclausal sentences as well. The most common utterances of this type involve the optative/desiderative use (ex. 10; cf. sec. 3.1) or polite requests (ex. 11), but this is also possible with other uses of *dara*. In some such examples, like those in (13–14), the presence of *dara* does not change the truth-conditional meaning of the sentence but implies that there is more to be said.

- (13) a. Naka-sambat oku dit=orang.tua.
 PST.NVOL.AV-meet 1SG.NOM ACC=head.man
 'I managed to meet with the village chief.' (simple statement of fact)
 - b. Naka-sambat oku dara dit=orang.tua.
 PST.NVOL.AV-meet 1SG.NOM FRUST ACC=head.man
 'Yes, I did manage to meet with the village chief...' [4Sep23]
 (implies: but I didn't accomplish my purposes in meeting him)
- (14) a. Waro siin ku.exist money 1SG.GEN'I have some money.' (simple statement of fact)
 - b. Waro dara siin ku.
 exist FRUST money 1SG.GEN
 'Yes, I do have some money...' [4Sep23]
 (implies some kind of reservation on the part of the speaker, e.g.: "... but I can't use it for the purpose you are suggesting, I need it for something else.")

In other cases, like those in (15–16), the presence of *dara* does correlate with a change in the truthconditional meaning of the sentence. When *dara* co-occurs with a non-past verb form in a context where there is no indication of a frustrating circumstance, the most natural interpretation would be the optative: something the speaker hopes for. In sentences like (15b) and (16b), however, the optative reading (e.g., 'I hope to be bitten by the dog.') would be highly implausible. As discussed in section 3.2, such utterances may trigger a coerced shift in the time reference of the verb, from non-past to past tense with prospective aspect. Under this interpretation, (15b) literally says 'I was about to be bitten by the dog *dara*', and (16b) literally says 'My car was about to fall down the hill *dara*'.

(15) a. Iit-an oku no da = tasu.
bite-DV 1sg COMPL GEN = dog
'I am about to be bitten by the dog.'

- b. Iit-an oku no dara da = tasu.
 bite-DV 1sg COMPL FRUST GEN = dog
 'I almost got bitten by the dog.' [4Sep23]
 (Likely response: "So what happened? How did you escape?")
- (16) a. ?O-liwan it=kurita ku sid=sokid.
 NVOL-fall NOM=car 1SG.GEN DAT=hill
 'My car is going to fall down the hill.' (odd without special context)
 - b. O-liwan dara'ay it=kurita ku sid=sokid.
 NVOL-fall FRUST NOM=car 1sG.GEN DAT=hill
 'My car almost fell down the hill.' [4Sep23]
 (Likely response: "So what happened? What did you do?")

In summary, there are many cases where omitting *dara* merely renders the sentence unnatural, but in other cases this omission appears to trigger a change in the meaning of the sentence. Such changes are often due to coercion effects, as discussed in the following section.

3 Davis & Matthewson's (2022) analysis of St'át' imcets séna7

As noted above, the St'át'imcets frustrative particle *séna7* shares many but not all of the functions of Kimaragang *dara*. (Some of the differences will be discussed below.) Davis & Matthewson argue that the kind of expectation relevant to the interpretation of *séna7* is based on epistemic necessity. They adopt Kratzer's (1981; 1991) analysis of epistemic modality as a framework for understanding the meaning of *séna7*.

Kratzer builds on a large body of earlier work that analyzes modality as a kind of quantification, or generalization, over possible worlds (= possible situations or states of affairs). Within this tradition, a statement of modal necessity such as *Michl must be the murderer* can be viewed as a claim that the sentence *Michl is the murderer* is true in all situations of the relevant kind. For epistemic modality, relevant situations are those which are EPISTEMICALLY ACCESSIBLE, i.e., compatible with the available evidence, or with what the speaker believes about the world.

Kratzer argues that, in order to derive the correct interpretation for certain kinds of modal sentences, a second step is needed. In addition to determining the appropriate set of relevant worlds/situations, which she calls the MODAL BASE, it is also necessary to rank these worlds based on an appropriate ORDERING SOURCE. The modal sentence makes an assertion about the highest ranked worlds of the appropriate type. Davis & Matthewson (2022: 1358) describe the meaning of the example sentence cited in the preceding paragraph as follows: "A standard analysis of [this sentence] is that it means 'In all worlds which are compatible with the speaker's beliefs/evidence (epistemic modal base), and in which things proceed in a maximally normal manner (stereotypical ordering source), Michl is the murderer.' "

This analysis forms the basis for Davis & Matthewson's formal description of the meaning of the St'át'imcets frustrative particle *séna7*, which they summarize as follows:

"[T]he speaker of $s\acute{e}na7(p)$ asserts p, and conveys at a not-at-issue level that there is a true proposition q, and there is no world w' among the most stereotypical worlds epistemically accessible to the speaker such that p and q are both true in w'... In our analysis, $s\acute{e}na7$ quantifies over the same set of worlds as an epistemic modal, but conveys that there are no maximally stereotypical epistemically accessible worlds in which p and q are both true." (Davis & Matthewson 2022: 1358)

The "at-issue" content of an utterance is its truth-conditional meaning: the main point that is asserted in a statement or queried in a question. Davis & Matthewson (2022: 1362) state: "Our claim that *séna7* contributes its semantic content in the not-at-issue dimension predicts that its unexpectedness contribution cannot take scope under operators such as negation. This is correct." The same is true in Kimaragang: *dara* always takes scope over negation, as seen in ex. (7b) and (17), and interrogative force, as illustrated in (18).⁹ In (17), this means that the intention which is frustrated is the woman's intention not to agree to the marriage. If negation could take scope over *dara*, the first clause might mean something like 'It was not in vain that she agreed' (implying that the marriage was successfully concluded); but no such reading is possible for this sentence.

- (17) Ami=i' dara yalo mongoo nga', j<in>ajal-an di=tama.
 NEG=EMPH FRUST 3SG.NOM AV.agree but <PST>force-DV GEN=father
 'She did not intend to agree/would not have agreed (to marry), but her father forced/pressured her.' [Kim-dict]
- (18) a. Siombo ot ongoy-on duyu dara'ay?
 where NOM go-LV 2PL.GEN FRUST
 'Where were you trying to go?' [9Oct15]
 (e.g. to someone who has met with an accident or gotten lost)
 - b. Indorosi[y]-on oku dara'ay dikaw oy?
 frighten-OV 1SG.NOM FRUST 2SG Q
 'Are you trying to scare me?' (implied: you can't scare me!) [9Oct15]

⁹ As Davis & Matthewson (2022: 1385–86) point out, the analysis proposed in Kroeger (2017) does not adequately account for these facts: "Kroeger's analysis employs modality in the at-issue truth conditions: a *dara*-clause makes a modal assertion. This allows *dara*'s prejacent to be false in the actual world… However, there are some significant exceptions to Kroeger's claim, where *p* is in fact entailed by *dara*(*p*). These include cases where the prejacent clause is marked for past tense, as well as predicates which describe states in the past or present. In these cases, *dara* entails its prejacent, just like *séna7* does." They suggest that the frustrative modal semantics could be "not-at-issue" in Kimaragang, as it is in St'át'imcets, and I have adopted that analysis in the present paper.

The crucial point about the question examples in (18) is that non-realization (of arrival at the intended destination, or frightening the speaker) is not part of what is being questioned, but is taken for granted. If *dara* could be interpreted as part of the at-issue content that is being questioned, (18a) might mean something like: 'Where did you try to go in vain, as opposed to the destinations that you succeeded in reaching?' Sentence (18b) might mean something like: 'Are you trying to fail to scare me, or do you really mean to frighten me?' But once again, such readings are impossible for these examples.

Davis & Matthewson's analysis provides an account for the various uses of *séna7*, including frustrated expectation and discontinuous past. Davis & Matthewson argue that their analysis also accounts for examples involving frustrated intention, without any need to extend the meaning of *séna7* to include non-epistemic modality (e.g., modality based on intentions or desires of the agent rather than the beliefs of the speaker): "By adopting one extra assumption — that the expected outcome of an intention is that the intention is fulfilled — we can reduce the failure of intention cases to failure of expectation cases" (Davis & Matthewson 2022: 1385).

3.1 Extending the analysis to Kimaragang

Davis & Matthewson suggest that essentially the same analysis could work for Kimaragang *dara*, as well. In doing so, they note that examples like (19) pose a problem for their hypothesis, because the "prejacent" or base proposition p (literally 'I will kill that cobra') is apparently not asserted to be true:

(19) Patay-on ku dara ilo' masalong nga', tiniag oku di = ama.
kill-ov 1sG.GEN FRUST that cobra but PST.forbid.ov 1sG.NOM GEN = father
'I was about to kill that cobra dara, but Father forbade me.'
(due to ritual taboo against killing a snake while walking to rice field?) [29Jul15; Kroeger 2017]

Kroeger (2017) proposed an analysis for such examples which assumed a shift in the meaning of Kimaragang tense morphology: past vs. non-past in most contexts, realis vs. irrealis in clauses marked by *dara*.¹⁰ Davis & Matthewson note that in analogous St'át'imcets examples, the verb would be overtly marked for prospective aspect. They suggest that a better analysis of the Kimaragang examples can be achieved by assuming that in frustrative clauses, the Kimaragang non-past verb form gets interpreted as prospective aspect, as suggested by the free translation of (19). Under this hypothesis, the asserted base proposition in (19) is 'I was about to kill', while the expected outcome that remains unrealized is the actual killing, and *dara* contributes its normal frustrative interpretation. This same reasoning applies to the avertive ("action narrowly averted") examples in (6) above.

¹⁰ Comparative evidence suggests that realis vs. irrealis may have been the historical source of these tense markers, but as a synchronic analysis this proposal does not seem to be well-motivated.

This is a good suggestion, which provides a good analysis for the avertive and frustrated intention uses of *dara*, and I adopt this proposal going forward. However, more research is needed concerning the availability of prospective aspect in Kimaragang. Davis & Matthewson (p. 1387) state: "If Kimaragang unmarked eventive predicates allow future time reference, then *dara*-clauses with these unmarked predicates could in effect be parallel to St'át'imcets *séna7*-clauses with prospective aspect *cuz*'." In other words, they suggest that in general, Kimaragang eventive predicates allow either future or prospective readings in the absence of past tense marking. In fact, while the non-past verb form does normally allow a future tense reading, it appears that the prospective aspect reading is available only under certain circumstances, which I do not yet fully understand. In the following section I offer some brief comments on tense and aspect in Kimaragang, and how these categories affect the interpretation of *dara*.

3.2 Tense, aspect, and the interpretation of dara

Examples (15–16) and (19) illustrate how the presence of *dara* can license not only the prospective aspect interpretation but also a shift in time reference, from non-past to past. The use of the non-past (i.e., unmarked) verb form in these examples to refer to a past time is somewhat surprising. Example (20) demonstrates that in a simple main clause, the non-past verb form is compatible with present or future time reference, but not with past time reference.

- (20) a. M<in>ongoy/*mongoy oku sid=talob koniab.
 <PST>AV-go/*AV-go 1SG.NOM DAT=market yesterday
 'I went to the market yesterday.'
 - b. M-ongoy/*minongoy oku sid=talob (diti).
 AV-go /* < PST > AV-go 1sG.NOM DAT = market PROX 'I am going to the market (right now).'
 - c. M-ongoy/*minongoy oku sid = talob suwab.
 AV-go /* < PST > AV-go 1SG.NOM DAT = market tomorrow
 'I will go to the market tomorrow.' [Kroeger 2005; 2017]

How then can we explain the "prospective aspect in the past" interpretation for the non-past verb in examples like (19)? In most cases, the critical factors seem to be (a) the tense marking of other clauses in the sentence, and (b) contextual indicators that the expected outcome was not realized.

According to the first clause of Davis & Matthewson's proposed definition, p dara asserts that p is true. Now the basic, literal meaning of the initial clause in example (19) is 'I will kill that cobra', but the continuation of the sentence makes it clear that this proposition is not true. The sentence can only be made non-contradictory by assuming that this literal meaning is not the base proposition p which dara operates on. The past tense form in the continuation also indicates

a topic time in the past for the sentence as a whole. These contextual constraints force a shift in the temporal interpretation of the first clause, resulting in: 'I was about to kill the cobra'. This is the proposition p that is asserted to be true. The salient expected outcome that fails to be realized is that the cobra will be killed.

This kind of context-driven shift in aspectual interpretation is often referred to as COERCION (Moens & Steedman, 1988). De Swart (1998) describes such shifts as follows:

Typically, coercion is triggered if there is a conflict between the aspectual character [i.e., Aktionsart–PK] of the eventuality description and the aspectual constraints of some other element in the context. The felicity of an aspectual reinterpretation is strongly dependent on linguistic context and knowledge of the world.

Since there is no grammatical marker for prospective aspect in Kimaragang, this reading arises primarily through coercion. To help clarify the role of coercion in frustrative constructions, let us briefly consider some coercion effects which can be triggered by a different particle, the "completive" aspect marker *no*. Kroeger (2021 ms.) describes the aspectual functions of *no* as being very similar to those of the sentence-final particle *le* in Mandarin, which Olsson (2013) refers to as a IAMITIVE.¹¹ Some of the most common uses of the completive particle are illustrated in the examples below.

Soh & Gao (2006) and Soh (2009) propose that Mandarin sentence-final *le* marks "Change of situation". More specifically, they propose that a sentence of the form *p le* (i) asserts that *p* is true at topic time, and (ii) presupposes that *p* was not true prior to topic time. Let us assume that this is also the core meaning of Kimaragang *no*. When *no* combines with a stative predicate, as in (21b), the proposition ('we are out of water') is asserted to be true now, and presupposed not to have been true earlier. The result is an INCHOATIVE (change of state) reading, 'We have run out of water'.

- (21) a. Aso weeg. NEG.EXIST water 'There is no water.' or 'We have no water.'
 - b. Aso *no* weeg.'We have run out of water.' (relatively recently) [14Aug15]

When *no* combines with a non-past verb describing a process, as in (22b), at least two readings are possible: INCEPTIVE 'It has started to rain,' or (by coercion) PROSPECTIVE ASPECT 'It is about to rain.' The first reading takes the rain event itself as being the new situation: 'it is raining now, but was not raining before'. The second reading takes the immediate "pre-time" of the rain event as being the new situation: 'it is about to rain now, but was not about to rain before'. The choice

¹¹ An important difference of course is that Kimaragang distinguishes past vs. non-past tense, but Mandarin does not.

between these two readings will depend on context. Additional examples involving prospective aspect are seen in (15a) and (23).

- (22) a. Dumarun. 'It is raining.'
 - b. Dumarun *no*.'It has started to rain.' Or: 'It is about to rain.' [Kim-phrase book]
- (23) (context: "Quick, call the midwife, because...")

... monusu no it=sawo yo.

AV:give.birth COMPL NOM = spouse 3SG.GEN

'... his wife is about to give birth.' [13Aug15]

Another fairly common coercion effect that can arise when non-past eventive verbs are followed by the completive aspect particle is "newly formed intention": the agent did not intend to perform the action before, but now he does.¹² This is illustrated in example (24), taken from an origin myth about the rock formations on the top of Mt. Kinabalu.¹³ A man climbs to the top of the mountain to bring back the soul of his dead wife. He threatens the guardian spirits and begins to chop holes in the mountain top until they relent and agree to send her back. Here the meaning of the clause without the completive particle would be 'we will cause your wife to return'. When combined with completive aspect, the clause is interpreted as expressing a change of heart: the guardian spirits are now willing to release the wife and send her home, which was previously not the case.

(24) ... ilo' sawo nu poolion ya no. that spouse 2SG.GEN CAUS:return:OV 1PL.EX.GEN COMPL
'(Don't worry, go home now,) we now *intend to* send your wife back.' (i.e., 'We *have decided to* send your wife back.')

Notice that in these examples where prospective aspect is triggered by completive *no*, there is no shift in time reference: for all of these sentences the topic time remains in the present. Only when *dara* is also present, as in (15b) and (25), do we find topic time in the past.

(25) Wurayut oku nopo di = sakot tu' lumiwan oku *no* dara sid = kurimbang.
pull.ATEMP 1SG only ACC = grass because fall 1SG COMPL FRUST DAT = bank
'I just pulled on the grass, because I was *about to* fall down the river bank.' [Kim-dict]

However, I suggest that *dara* itself does not require this coerced shift in time reference. No such shift is found in statements of wishes or desires, like those presented in (10) and in section 3.3, even though they are marked by *dara*. One important factor in triggering this shift appears to be

¹² All of the uses of *no* illustrated here are also common functions of Mandarin sentence-final *le*.

¹³ https://www.kimaragang.net/sites/www.kimaragang.net/files/uploads/F024-KQR%5B1%5D.pdf

tense marking in non-*dara* clauses. The *dara* clause in avertive and frustrated intention examples generally contains a non-past verb form, which allows the prospective interpretation. But if the sentence contains another clause expressing the frustrating circumstance, that clause is generally expressed in the past tense, as in exx. (6, 7b, 19), or with the atemporal form of the verb used in its "narrative tense" function, as in exx. (7a) and (25). Both of these forms indicate topic time in the past.

As de Swart pointed out, coercion effects are determined not just by the presence of a particular grammatical morpheme, but also by contextual factors and knowledge of the world. Thus even in monoclausal sentences like (15b) and (16b), where the *dara* clause contains an eventive non-past verb, if something in the context makes it clear that the relevant expectation was not realized, then the non-past verb is quite likely to be interpreted with past time reference. The prospective aspect reading is clearly more accessible when *dara* is present, as seen by the unacceptability of (26b) and (27b). However, occasionally this reading is possible even without *dara*, as illustrated in (28), although such examples seem to be uncommon.

- (26) a. O-liwan dara'ay it=kurita ku sid=sokid, nga' n-i-bontol ku
 NVOL-fall FRUST NOM=car 1SG.GEN DAT=hill but PST-IV-block 1SG.GEN sid=pampang tagayo.
 DAT=rock big
 'My car was about to fall down the hill but I ran it into a big rock.' (= 4a)
 - b. #Oliwan it=kurita ku sid=sokid, nga' nibontol ku sid=pampang tagayo. [similar meaning but unnatural] [4Sep23]
- (27) a. Amu ku dara onuw-on it = siin n-i-taak dialo nga', n-i-jojol NEG 1SG.GEN FRUST take-OV NOM = money PST-IV-give 3SG but PST-IV-force dialo.
 3SG
 'I did not intend to take the money he gave me, but he forced it on me.' (=5b)
 - b. #Amu ku onuwon it=siin nitaak dialo nga', nijojol dialo. [similar meaning but unnatural] [4Sep23]
- (28) Ami = i' (dara) yalo mongoo nga', j < in > ajal-an di = tama.
 NEG = EMPH FRUST 3SG.NOM AV.agree but <PST > force-DV GEN = father
 'She did not intend to agree/would not have agreed (to marry), but her father forced/ pressured her.' (cf. ex. 17) [Kim-dict; 14Aug23]

Prospective aspect provides a good analysis for the avertive use of *dara*, but it may seem less plausible as an analysis for examples like (29). Because the circumstances (specifically, in this case, the lack of rattan) make the described event impossible, it seems a bit odd to say that the event is

"about to happen".¹⁴ The relevant interpretation here has to do with the agent's intentions. Notice that in this example, as in the other examples of frustrated intention presented in (7), there is no overt word or morpheme that expresses desire or intention; the intention is inferred by coercion.

Momolit i=iyay di=bubu dara nga' asot wakaw.
 AV:TR1:bind NOM=mother ACC=fish.trap FRUST but NEG.EXIST rattan
 'Mother *wants to* bind the fish trap (that she just built), but there is no rattan.' [Kim-dict]

As discussed in Kroeger (2017), the basic (volitive or "neutral") past tense verb form entails that the action was initiated, or at least attempted. For this reason, *dara* clauses that contain past tense eventive verbs typically express either the core frustrative function (action done in vain) or the incompletive function. *Dara* clauses that contain non-past eventive verbs typically express the avertive and frustrated intention functions.

3.3 A problem for the analysis

The frustrative particle can be used to mark frustrated desires, not only in Kimaragang but also in St'át'imcets. Some Kimaragang examples are provided in (30). No coercion effect is needed to explain these examples, because the component of desire is generally made explicit with either a lexical predicate (as in 30a) or a derivational affix (e.g. desiderative *ti*-, as in (30b), or petitive *poki*- as in (30c).¹⁵

- (30) a. Engin oku dara mangambur sid=laut nga' aso koruang ku.
 want 1sG FRUST go.fishing DAT=sea but NEG.EXIST companion 1sG
 'I want to go fishing (with drop line) in the ocean, but I don't have any companion.'
 [Kim-dict]
 - b. Ti-indoo oku dara nga', amu po kawasa.
 DESID-descend 1SG.NOM FRUST but NEG yet able
 'I want to go down (out of the house), but I am not yet able to (due to ritual taboo).'
 [Kim-dict]
 - c. Moki-susundur=i' dara yalo manansawo nga' warot kadaat kabarasan. AV.PET-procede=EMPH FRUST 3SG AV.marry but exist bad.omen it.is.said 'He wants to go ahead with the wedding, but people say there is a bad omen.'¹⁶ [Kim-dict]

¹⁴ I asked my consultant on two separate occasions whether *dara* could be omitted from (29). On the first occasion (14-Aug-23), he replied that the resulting sentence (*Momolit* i=iyay di=bubu nga' asot wakaw.) sounded somewhat unnatural, but might be acceptable in a very specific, unusual situation. When I asked again several months later, he simply rejected the sentence as being unnatural (*oloyow* 'strange').

¹⁵ The petitive prefix *poki*- has several different functions including (a) 'ask for X', (b) 'want to do X', (c) 'try to do X', or (d) 'look for/gather X'.

¹⁶ My consultant said that examples (30b-c) would still be acceptable with the same meaning if *dara* is omitted, but somewhat less natural. He used the Malay phrase *tidak cukup rasa* 'not enough flavor'.

In Kimaragang however, unlike St'át'imcets, the frustrative particle is also used to mark desires which are not known to be frustrated. These sentences describe desires which are unfulfilled as of the time of speaking, but could well be fulfilled at some future time. In such examples *dara* can function as the only indicator of desiderative force in the clause, as in (31a), but more often it co-occurs with either a lexical predicate (31b,c) or a derivational affix expressing desire.

a. Mongolos oku dara dit=widio dialo. (31) AV.borrow 1SG FRUST ACC=video 3SG 'I would like to borrow his video machine.' [Kim-dict] b. Context: Folktale;¹⁷ a young squirrel speaking to his widowed mother: Ay Idi, engin oku dara manangod. Oh Mother, want 1SG FRUST go.headhunting 'Oh Mother, I want to go headhunting.' (His mother replies, "Well, do whatever you want," so he goes out to take heads, with unfortunate results.) c. Context: Folktale;¹⁸ a python speaking to a kind-hearted young man who has been sent out to hunt for game to feed his family: "Nga' engin oku **dara'ay** mongoduat dikaw oy Anak-Anak, want 1SG FRUST AV.ask 2sg VOC youngster but ""But I want to ask you something, Boy," simbaron nu = i' oy?" ka dit Lopung. '... will you answer?" said the Python.'

Such examples suggest that Kimaragang *dara* does not always have a strictly frustrative meaning. We address this issue in the next section.

4 Non-realization/cessation inference: entailment or implicature?

An important difference between descriptions of frustrated desire like those in (30) and simple statements of desire like those in (31) is that the former, but not the latter, typically include a clause expressing a frustrating circumstance. When there is no frustrating circumstance expressed in the sentence, and when none is provided by the discourse or utterance context, the most natural interpretation is that the desire may yet be fulfilled. The fact that *dara* does not block this interpretation seems to challenge the hypothesis that the core meaning of *dara* is frustrative, i.e., non-realization of some expected outcome.

I suggest that this is one of the ways in which *dara* is different from St'át'imcets *séna7*. Davis & Matthewson demonstrate that "the contribution of *séna7* ... is not cancelable and therefore

¹⁷ https://www.kimaragang.net/sites/www.kimaragang.net/files/uploads/F013-KQR%5B1%5D.pdf.

¹⁸ https://www.kimaragang.net/sites/www.kimaragang.net/files/uploads/F027-KQR%5B1%5D.pdf.

is not a conversational implicature." In other words, the sense of failed expectation is lexically encoded and thus entailed by *séna7*. I propose that *dara* is weaker in this respect: *dara* lexically specifies only that the expected outcome cannot be asserted to be true at the time of speaking. Non-realization arises as a pragmatic inference in contexts where the speaker can be expected to know the outcome, as suggested by Cable (2017) for Tlingit.

The hypothesis that the sense of failed expectation associated with *dara* is a conversational implicature is supported by examples like (32). When we see ears forming on the rice plants, the expected outcome is that the ears will contain kernels of rice. The presence of *dara* could be used to indicate that this outcome is not realized. However, the speaker goes on in the second clause to explicitly deny any knowledge as to whether or not this is in fact the case, and this denial is not felt to be anomalous or contradictory. In the terminology of Horn (1972) and Sadock (1978), this shows that the inference of failed expectation is SUSPENDABLE, a characteristic property of conversational implicatures.

(32) Outcome unknown

Ki-ongo-silaw = i' **dara** i = paray nga' amu ela'an ong ki-onsi ko' tongo. EXIST-PL-ear = EMPH FRUST NOM = rice but NEG know if EXIST-flesh or what 'The rice plants have produced heads/ears, but I don't know whether there is flesh in the grains or not.¹⁹ [Kim-dict]

Another "open-ended" use of *dara* is seen in optative sentences where the outcome is unknown at the time of speaking, as illustrated in (33). This usage is similar to that demonstrated in the desiderative examples in (31).

(33) **Optative**

- a. Awasi **dara** ong ataar neti(no=iti) talun-alun tokou. good FRUST if NVOL:pave:OV COMPL=this road 1PL.INCL 'How good it would be if our road can be paved.' [Kim-dict]
- b. (message on village Whatsapp chat group, concerning the scheduled visit of officials from the state Health Department.) Awasi dara'ay ong kooli okoy po om orikot nogi ot NVOL:return:AV 1PL.EXCL first and arrive then NOM good FRUST if jadual daalo lumawat sino. schedule 3pl AV.visit there 'It would be good if we can arrive back home before the scheduled time of their visit.' [Nelleke Johansson, p.c.]

The "polite request" examples presented in (11) also involve this open-ended interpretation of *dara*. In these examples the particle functions as a politeness marker, changing a demand into

¹⁹ The same sentence without *dara* is also judged to be fully acceptable with the same meaning, but including *dara* is felt to be slightly more natural.

a request, by explicitly indicating that the speaker does not assume that the desired outcome will be realized. In this way the addressee is treated as retaining some degree of control over his response. Example (34) suggests that this polite use of *dara* has been at least partially conventionalized, since the utterance context (a king addressing his prisoner) might lead us to assume that the addressee is not really free to say "no". (However, my consultant stated that in this conversation Joseph could have said "no" if he could provide a valid reason for doing so.)

(from draft translation of Gen. 41:15) Context: Pharaoh sends for Joseph, who is in (34)prison, to interpret his dream. When Joseph arrives at the palace, Pharaoh tells him: "Okon.ko' nunu ot = kinapaangayan ku too dikaw siti nga' NEG what NOM = reason.for.summoning 1SG.GEN PRTCL 2SG here but mokiarati oku dara dikaw dit=tinipi ku." PET:understand 1SG.NOM FRUST 2sg ACC = dream 1SG.GEN 'My reason for having you brought here was just to ask you to explain my dream.'

The politeness of the *dara* clause is consistent with the tenor of the first clause, literally 'My reason for causing you to be fetched here was nothing, but...', which is understood to be an attempt to allay any fear Joseph may feel at being brought before the king in this way. However, my consultant offered a second possible interpretation of *dara* in this example, namely that it indicates Pharaoh's doubt as to whether Joseph is able to interpret the dream or not. Under this reading of the sentence, *dara* indicates real uncertainty and not just conventional politeness. In either reading, the outcome is treated as not yet known at the time of speaking.

5 Types of modality

We turn now to the second area where I propose a difference in the meaning of *dara* vs. *séna7*, namely the type of modality invoked. Davis & Matthewson (2022: 1380) argue that the expectations which are relevant for interpreting the frustrative meaning in St'át'imcets are purely epistemic:

"Séna7 also appears... when the issue is not a failed outcome, but simply an unexpected co-occurrence with another eventuality... [S]éna7 conveys unexpectedness but does not always rely on causes and effects..."

I claim that in Kimaragang, the relevant expectations are circumstantial in nature. Epistemic modality expresses possibility and necessity in light of available evidence, i.e., based on what the speaker knows or believes about the world. Circumstantial modality expresses possibility and necessity based on the circumstances that give rise to the described situation or event. Kratzer (1991: 646) describes the difference as follows:

"Epistemic modality is the modality of curious people like historians, detectives, and futurologists. Circumstantial modality is the modality of rational agents like gardeners, architects and engineers. A historian asks what might have been the case, given all the available facts. An engineer asks what can be done given certain relevant facts."

In discussing the meaning of the Tohono O'odham frustrative particle, Copley (2005) makes use of Dowty's (1979) concept of INERTIA to define the relevant class of expectations. An "inertia world" is one in which the normal course of events is followed as closely as possible, so given a set of initial conditions, the outcome is predictable. Omitting some of the details, Copley defines the frustrative particle as indicating that there is some salient outcome q that is true in every inertia world in which the base proposition p is true; and that in the real world, p is true but qis false.

Circumstantial (or "root") modality can make reference to various factors, depending on the context of the utterance. These may include the agent's abilities (DYNAMIC modality), goals (TELEOLOGICAL modality), or desires (BOULETIC modality). The concept of inertia is broad enough to include a substantial subset of these factors. As Copley (2005) puts it, "The relevant idea is that inertia, the principle that 'things proceed normally,' can make reference to either physical forces... or intentions..."

As Davis & Matthewson point out, in many situations either epistemic or circumstantial reasoning will lead to the same predictions. In order to distinguish the two hypotheses, we need to find contexts where they make different predictions. The remainder of this section will discuss some of these contexts.

5.1 Epistemically inaccessible outcomes

Example (35) poses a problem for the hypothesis that the interpretation of the Kimaragang frustrative involves purely epistemic expectations. The frustrated desire expressed by the speaker in this case is the natural desire not to die. But since we all die, there is no epistemically accessible world in which this desire is attained. For this example the frustrated expectation must be defined in terms of circumstantial (specifically bouletic) modality: the possible worlds which must be considered are those in which relevant desires are fulfilled. In other words, given the base proposition 'I don't want to die', the relevant outcome is: 'I will not die'. This outcome will be realized in all possible worlds/situations in which the speaker's desires are fulfilled, and *dara* is used here to indicate that the real world is not one of those worlds. Epistemic modality will not work here, because the relevant outcome will not be realized in any possible world which is consistent with what the speaker believes about the real world.

(35) Aku engin dara matay nga' kuoyon.po.dino dot orikot no NEG.1SG want FRUST AV.die but what.to.do COMP arrive COMPL ot = sukud.
NOM = lifespan
'I don't want to die, but what can you do when your time is up.' [Kim-dict] *init* = 'I don't want to die'; *exp* = 'I will not die'

Davis & Matthewson (p. 1343, ex. 11) cite a St'át'imcets example in which *séna7* is used to mark an unfulfilled desire: 'I really want to go and lay out in the sun for a while' (Context: the weather is beautiful but the speaker has to write a paper). Davis & Matthewson argue that such examples can be accounted for, under their hypothesis that the frustrative meaning in St'át'imcets involves purely epistemic expectations, by invoking the principle that an agent's desires can create the expectation that an action will be carried out:

For (11) and other similar cases, we assume that the expected outcome of a mental attitude of desire is that the desired situation obtains. Copley and Harley (2014) achieve a similar effect through their Law of Rational Action, which states that a volitional agent with a desire will act as a force which ceteris paribus will result in the desired situation coming about. [Davis & Matthewson, p. 1344]

I believe that this explanation works for some kinds of situations, e.g. intentions to perform a volitional action, but not others. When a volitional agent intends to perform a certain action, the expected outcome of this intention is that (ceteris paribus) he will perform the action. The word *intend* seems to presuppose that the agent believes it is possible for him to perform the action. However, this presupposition does not arise when we speak of desires, what the agent wants to do. In this case we need to judge, based on knowledge of the world etc., how likely it is that the agent (a) believes the action to be possible, and (b) actually intends to carry it out. When someone says "I really want to go and lay out in the sun for a while," it is reasonable to expect that, in the absence of some frustrating circumstance, the speaker will carry out the desired action. But this expectation does not arise when someone says, while watching an annoying public figure on television, "I really want to smack him in the face."

Similarly, a desire for a certain state or non-volitional event to occur does not necessarily create an expectation that the desire will be fulfilled. The desire expressed in example (35) (not to die) is not the intention of a volitional agent, and is not attainable in any epistemically accessible world. Therefore it cannot trigger an epistemic expectation of fulfillment.

Counterfactual uses of *dara* pose a similar problem for a strictly epistemic approach. Counterfactual statements are by definition not epistemically accessible: they are known or assumed by the speaker to be false. The optative examples in (10a) and (33) express open-ended, hypothetical optatives (e.g., "If only I could find that key!"), i.e., wishes of the speaker that are still hoped for at the time of speaking. But the particle *dara* can also be used for counterfactual optatives (e.g., "If only I could have found that key!"), i.e., wishes that the speaker knows will not be fulfilled:

- (36) a. Songkuro kaawasi dara'ay ong babanar = ko' akaya ko = i' nga' mu-musikin how good FRUST if truly = PRTCL rich 2SG = EMPH but DUP-poor ko = i'.
 2SG = EMPH
 'How wonderful it would be if you were actually rich, but in fact you are poor.'
 [JJ elicitation, 28Sept22]
 - b. (from translation of Matthew 25:27) Context: A wealthy man entrusts money to various servants, expecting them to invest it. One of them is fearful and just buries the money in the ground. The master scolds this servant saying:
 "Mogot noogi dara ong niatag nu sid=bank it=siin ku diri, benefit PRTCL FRUST if PST:IV:put 2SG DAT=bank NOM=money 1SG that 'It would have been better if you had at least placed my money in a bank' supaya, ong kooli oku, aanu ku it siin ku dot ki-bunga."
 '... so that when I returned, I could have received my money with interest.'

In order for the purely epistemic analysis proposed by Davis & Matthewson to account for such examples, we would need to assume that the speaker's desire for a certain outcome (e.g., for the addressee to be rich) creates an expectation that the desire will be fulfilled (the addressee will become rich), in stereotypical worlds consistent with what is known about the real world. For reasons discussed immediately above, I do not believe that this assumption is valid. The expectations are circumstantial, specifically bouletic, in nature: the relevant outcome can be expected in any world in which the speaker's desires are achieved. *Dara* indicates that the real world is not such a world.

In this section I have argued that the expectations *dara* cancels are not always epistemic in nature: there are at least some uses in which a circumstantial interpretation is necessary. In the following section we will examine some uses of *séna7* that should be possible only under an epistemic interpretation. None of these uses seems to be possible for *dara*. If this assessment is correct, it would lead us to conclude that *dara* is never epistemic but always purely circumstantial in nature.

5.2 Failed outcome vs. unexpected co-occurrence

In the passage cited at the beginning of sec. 5, Davis & Matthewson (2022: 1346) state that "*[s]éna7* also appears... when the issue is not a failed outcome, but simply an unexpected co-occurrence with another eventuality". In other words, *séna7* marks the failure of an expected correlation between two propositions, rather than the failure of an expected chain of events.

The St'át'imcets example shown in (37) illustrates a mirative use of the particle, expressing surprise at the actual outcome (p) in light of the speaker's evaluation of the friend's ability (q). Clearly there is no causal relation between these two propositions, and they are not construed as belonging to a single chain of events. The unexpectedness of the correlation is purely epistemic.

(37) Context: I never thought that my friend would win the race, but she always thinks she'll come in first. The day of the race comes, and she wins by miles! I say to her: T'cúm = lhkacw séna7! win + MID = 2SG.SBJ CNTR 'You won anyway!' p: You won q: You aren't a good enough runner to win [Davis & Matthewson 2022: ex. 83]

The St'át'imcets example shown in (38) illustrates what we might call a concessive use of the particle. Davis & Matthewson write (2022: 1366): "In [38], *séna7* is licensed by the common expectation that... the spring salmon run at the same time as the strawberries are ripe. However, there is no causal connection between the salmon running and the berries ripening; it is simply that they ripen at the same time of year."

(38) Plan séna7 t'ak i=zúmak=a, t'u7 cw7áoy=s=t'u7 already CNTR go.along DET.PL=spring.salmon=EXIS but [NMLZ=]NEG=3POSS=EXCL kwas q'wel i=sq'wláp=a DET+NMLZ+IPFV+3POSS ripe DET.PL=strawberry=EXIS 'The spring salmon are already running, but the strawberries aren't ripe yet.' [Davis & Matthewson 2022: ex. 94]

When, as in examples (37-38), the two propositions whose correlation is unexpected are not construed as belonging to a single chain of events, it may be possible for the particle *séna7* to be placed in either clause without changing the meaning of the sentence. Davis & Matthewson (2022: 1361) describe this fact as follows:

"According to our proposal, the unexpectedness requirement of *séna7* targets two propositions (p and q) symmetrically. That is, although *séna7* syntactically appears within one clause (the p clause), the not-at-issue relation it expresses does not prioritize one proposition over the other... [T]he clause *séna7* is placed in has no effect on the meaning."

Davis & Matthewson illustrate this principle by pointing out that ex. (39) is exactly the same as ex. (38) except for the position of *séna7*, and the meaning of the two sentences is identical: "As further evidence that causality is not involved here, we elicited this sentence also with *séna7* in the opposite clause, as shown in [39]." Another similar pair is presented in (40a-b).

- (39) $i = z \hat{u} mak = a$, t'u7 cw7aoy = s = t'u7Plan ťak already go.along DET.PL = spring.salmon = EXIS but [NMLZ =]NEG = 3POSS = EXCLkwas i = sq'wláp = aséna7 q'wel CNTR DET + NMLZ + IPFV + 3POSSripe DET.PL = strawberry = EXIS 'The spring salmon are already running, but the strawberries aren't ripe yet.' [Davis & Matthewson 2022: ex. 95]
- (40) a. N-qwnúxw-alhts'a7 séna7 [ta=]s-7ít'-em-s=a s-Mary, t'u7 LOC-sick-inside CNTR [DET=]NMLZ-sing-MID-3POSS=EXIS NMLZ-Mary but áma ta=scwákwekw-s=a. good DET=heart-3POSS=EXIS 'Mary's song/singing was sad, but she is happy.' [Davis & Matthewson 2022: ex. 21]
 - b. N-qwnúxw-alhts'a7 [ta =]s-7ít'-em-s = a s-Mary, t'u7 áma LOC-sick-inside [DET =]NMLZ-sing-MID-3POSS = EXIS NMLZ-Mary but good séna7 ta = scwákwekw-s = a.
 CNTR DET = heart-3POSS = EXIS 'Mary's song/singing was sad, but she is happy.' [Davis & Matthewson 2022: ex. 78]

Because the two propositions whose correlation is unexpected are not construed as belonging to a single chain of events, and because either clause can be marked with *séna7*, it is possible for the situation described in p to occur later in time than the situation described in q. An example is seen in ex. (41): the teachers' lack of knowledge about cooking (q) predates the cooking lesson (p).

(41) Aoz n-scwákwekw kwas s-lhik-s-twítas kwa NEG 1SG.POSS-heart DET + NMLZ + IPFV + 3POSS STAT-clear-CAUS-3PL.ERG DET + IPFV kukw $i = n \hat{u} k w = a$. Wa7 tsunam'-en-túmulh-as séna7. cook PL.DET = some = EXIS IPFV teach-DIR-1PL.OBJ-3ERG CNTR 'I think some of them didn't know how to cook. But they taught us [to cook] anyway.' *p*: *They taught us to cook q*: They didn't know how to cook [Davis & Matthewson 2022: ex. 90]

These strictly epistemic uses of *séna7* are not shared by *dara*. Kimaragang has separate particles for the mirative (*bala*) and concessive (*poma*) functions, and *dara* does not seem to be used for either of these functions.

- (42) a. N-o-bunga-an=i' bala i = saam ku, yangko ka'atag ku.
 PST-NVOL-interest-DV = EMPH MIR NOM = bond 1SG.GEN although IMM-save 1SG.GEN
 'My savings bond has already earned interest (to my surprise), even though I only just deposited (the money).' [Kim-dict]
 - b. #Nobungaan = i' dara i = saam ku, yangko ka'atag ku. [15Aug23]

- (43) a. Mansak poma ot=bonguran nga' kakal=i' otomow it=kulit yo.
 ripe CONCESS NOM=banana.sp but still=EMPH green NOM=skin 3SG.GEN
 'Even though the *bonguran* is ripe, its skin is still green.' [Kim-dict]
 - b. #Mansak **dara** ot = bonguran nga' kakal = i' otomow it = kulit yo. [15Aug23]

Kimaragang *dara* does not appear to be symmetrical in the way that St'át'imcets *séna7* is. It does not seem to be possible to shift *dara* from one clause to the other without causing significant change to the meaning of the sentence, as in (44–45), or rendering the sentence meaningless, as in (46–50).²⁰

- (44) a. N-o-sii-Ø ku no **dara** it=tasu nga' n-iit-an oku=i'. PST-NVOL-say.*sii*-OV 1SG COMPL FRUST NOM=dog but PST-bite-DV 1SG=EMPH 'I said *Shii!* to the dog, but I got bitten anyway.' (= 1a)
 - b. N-o-sii-Ø ku no it = tasu nga' n-iit-an oku = i' dara.
 'I said *Shii!* to the dog, but it tried unsuccessfully to bite me.' [16Aug23]
- (45) a. Tila'ay di=tusing i=pinggan pinangakan ku lick.DV.ATEMP GEN=cat NOM=plate IV.PST.eat 1SG.GEN dot mangakan oku po dara.
 COMP AV.eat 1SG.NOM yet FRUST 'The cat licked the plate that I ate from, when I still intended to eat some more.' (=5a)
 - b. Tila'ay dara di = tusing i = pinggan pinangakan ku dot mangakan oku po.
 'The cat tried unsuccessfully to lick the plate that I ate from, while I was still eating.' [4Sept23]
- (46) a. Ogumu dara tuwa dat=mangga di=Soyinsin guulu nga' aso much FRUST fruit GEN=mango GEN=Soyinsin previously but not.exist no maakaa, naanu do=tulun.
 COMPL now PST.NVOL.take.OV GEN=person
 'There was a lot of fruit on Soyinsin's mango tree before, but there is none left now, people took them.' [16Aug23]
 - b. *Ogumu ot tuwa dat = mangga di = Soyinsin guulu, nga' aso no **dara** maakaa, naanu do tulun. [no sensible interpretation] [16Aug23]

²⁰ The one possible counter-example to this generalization is the counterfactual conditional construction, as discussed in section 2.

- (47) a. N-o-jiil-Ø dara yalo nga' n-i-labus kembagu.
 PST-NVOL-jail-OV FRUST 3SG.NOM but PST-IV-set.free again
 'He was put in jail, but they let him out again.' [Kroeger 2017]
 - b. *Nojiil yalo nga' nilabus dara kembagu. [28Sept23] [no sensible interpretation]²¹
- (48) a. N-o-liong-Ø dara iti siin ku nga' n-o-kito-Ø
 PST-NVOL-lost-OV FRUST this(NOM) money 1SG.GEN but PST-NVOL-see-OV ku kembagu.
 1SG.GEN again
 'This money of mine got lost, but I found it again.' [Kroeger 2017]
 - b. *Noliong iti siin ku nga' nokito ku dara kembagu. [28Sept23] [no sensible interpretation]
- (49) a. M-(p)oki-ta-tabang yalo dara'ay nga' amu diiri nakawaya.
 AV-PET-DUP-work.group 3SG FRUST but NEG this PST.NVOL.accompany
 'He/she wanted to join the labor exchange group, but didn't end up participating.'
 [Kim-dict]
 - b. *Mokitatabang yalo nga' amu **dara** nakawaya. [28Sept23] [no sensible interpretation]
- (50)a. (from a draft translation of Romans 7:18) waro nogi dara ot kenginan ku mamaal dit awasi, nga' aaku exist PRTCL FRUST NOM desire 1SG.GEN AV.make REL good but NEG.1SG kadapat mamaal dit awasi dino. able AV.make REL good that 'I have the desire to do what is right, but I am unable to do what is right.'
 - b. (modified version)
 *waro nogi ot kenginan ku mamaal dit awasi, nga' aaku dara kadapat mamaal dit awasi dino. (intended meaning as above) [2Dec22]

The concessive particle *poma*, in contrast, can (at least in some cases) mark either clause without changing the meaning of the sentence. An example is shown in (51).²² This potential symmetry between the clauses reflects the inherently epistemic nature of the concessive.

²¹ I checked example (47b) again a few months later, asking whether it might not be used if the man was arrested, then released, then arrested again. My consultant agreed that the sentence might allow this interpretation, but it would not be the most natural way to describe this sequence of events.

²² My consultant said that both of these sentences are grammatical and have the same meaning, but stylistically the (a) version sounds better to him. Notice that we have switched the order of the clauses, rather than simply moving the particle *poma* to the second clause. This is because in the concessive construction, *poma* can only occur in the first clause; occurrence in the second clause would be ungrammatical.

(51)(adapted from a draft translation of 2 Corinthians 6:8) a. Babanar **poma** ot = boroson nga' pokowuduton ya, DUP.true CONCESS NOM = say.OV 1PL.EX.GEN but call.liar.OV okoy = i'dot = tulun.1PL.EX.NOM = EMPH GEN = person'Even though what we say is true, people treat/regard us as liars.' b. (modified version) Pokowuduton okoy poma dot = tulun, nga' babanar = i' call.liar.ov 1PL.EX.NOM CONCESS GEN = person but DUP.true = EMPH ot=boroson ya. NOM = say.OV 1PL.EX.GEN

'Although people treat/regard us as liars, what we say is true.' [2Dec22]

I have found no naturally occurring Kimaragang examples with *dara* that involve the kind of reverse time sequence illustrated in ex. (41), and my attempts to elicit such an example were unsuccessful. In all the examples I have examined, the clause marked by *dara* describes a situation that is prior in time to the expected outcome (whether explicit or implied).

All of these observations are consistent with the hypothesis that the expectations relevant to interpreting *dara* are circumstantial in nature: given an initial circumstance *p* (which may be a desire or intention of some agent), what outcomes are to be expected if the normal course of events is followed as closely as possible? Because a course of events is unidirectional in time, the relation between initiating circumstance and expected outcome is not symmetrical. *Dara* marks the initiating circumstance, so shifting *dara* from one clause to the other will result in this second clause being reinterpreted as the initiating circumstance, leading to a different range of expected outcomes. Even when this is grammatically possible, it will create a clear change in the meaning of the sentence. The fact that a course of events is unidirectional in time also explains why is not possible for the proposition marked by *dara* to describe a situation that is later in time than the relevant outcome.

In light of this evidence, I offer the following definition of the frustrative particle *dara*, modeled after Davis & Matthewson's analysis of St'át'imcets *séna7*:

Proposed analysis for Kimaragang dara:

(52) Meaning of *dara* (*p*):

<u>At-issue</u>: *p* is true;

<u>Not at-issue</u>: there is a salient outcome q that is true in every "inertia world" in which p is true; but the truth of q cannot be asserted in the actual world at the time of speaking.

6 Conclusion

This paper has offered support for Davis & Matthewson's suggestion that the type of analysis they propose for the frustrative in St'át'imcets can be applied to the Kimaragang frustrative as well, and in fact provides a better analysis than the one proposed by Kroeger (2017). However, within that general approach, I have argued that the frustrative particles in these two languages differ along two parameters: (a) the type of modality, and (b) the nature of the "frustrated expectation" inference.

Davis & Matthewson make a strong case for the purely epistemic nature of *séna7*, but the occurrence of Kimaragang *dara* in counterfactual clauses, and the asymmetric nature of the non-realization inference that it contributes, suggest that *dara* is circumstantial rather than epistemic in nature.

Davis & Matthewson show that the "frustrated expectation" inference contributed by *séna7* is linguistically encoded, i.e., part of its conventional meaning. We have seen that Kimaragang *dara* does not always indicate the non-realization of an expected outcome, as demonstrated by its use in open-ended optatives and desideratives. Moreover, the "frustrated expectation" inference contributed by *dara* is supendable. In light of these facts, I have suggested that *dara* lexically entails only that the truth of some salient outcome cannot currently be asserted. The non-realization of an expected outcome often arises as a pragmatic inference in contexts where it is reasonable to expect the speaker to know the actual outcome(s).

As Davis & Matthewson (2022: 1385) point out, there is no reason to dismiss the idea that frustratives could vary cross-linguistically in terms of the type of modality that they invoke, since this kind of cross-linguistic variation is clearly attested for modal operators. Similarly, as noted in the introduction, it is well known that certain types of meaning may be linguistically encoded in some languages but arise as a pragmatic inference in others. Cable (2017) provides another example of a language in which the "discontinuous past" (cessation) and frustrative functions arise as conversational implicatures.

Our comparison of frustrative markers in Kimaragang and St'át'imcets thus seems to reveal two parameters of potential cross-linguistic variation. Cable's (2017) discussion of Tlingit may suggest a third parameter: it may be that frustrative markers in some languages, including Kimaragang and St'át'imcets, are modal in nature while frustrative markers in other languages, such as Tlingit, have a tense feature as their semantic core.²³ It will be interesting to see whether these parameters prove to be useful for classifying frustrative constructions in other languages as well. Another interesting question will be how many such parameters are needed in order to provide an adequate classification for frustrative constructions in all languages where they are attested.

²³ An anonymous reviewer points out that some uses of the French *imparfait* verb form are very similar to functions associated with frustratives in other languages: counterfactual conditionals, avertive (*imparfait d'imminence contrecarrée*), optative/desiderative, polite request (*imparfait de politesse*), etc. (See De Mulder (2004) and Patard (in press) for examples and references.) This could be seen as another instance of frustrative-type uses arising from tense-aspect core semantics.

Abbreviations (for Kimaragang examples)

<x> = infix, 1 = first person, 2 = second person, 3 = third person, ACC = accusative, ATEMP = atemporal, AV = Active Voice, CAUS = causative, COMP = complementizer, COMPL = completive aspect, CONCESS = concessive, DAT = dative, DESID = desiderative, DUP = reduplication, DV = Dative Voice, EMPH = emphasis, EX = exclusive, EXIST = existential, FOC = focus, FRUST = frustrative, GEN = genitive, IMM = immediate past, INCL = inclusive, IV = Instrumental Voice, LNK = link, LV = Locative Voice, MIR = mirative, NEG = negation, NOM = nominative, NVOL = non-volitive, OV = Objective Voice, PET = petitive, PL = plural, PRTCL = particle, PST = past tense, Q = interrogative, REL = relativizer, RECIP = reciprocal, SG = singular, TR1 = transitive paradigm 1, VOC = vocative

Acknowledgements

I would like to thank my primary language consultant, Mr. Janama Lantubon, for making this study possible, and for his life-long commitment to documenting and developing resources in Kimaragang; to Jim and Nelleke Johansson for checking some of the data and for helping me in many practical ways to carry out this research; to Jim again for sharing several versions of his dictionary database and other materials over the years; and to three anonymous reviewers for their extremely helpful comments and suggestions.

Competing interests

The author has no competing interests to declare.

References

Cable, Seth. 2017. The implicatures of optional past tense in Tlingit and the implications for 'discontinuous past'. *Natural Language and Linguistic Theory* 35(3). 635–681. DOI: https://doi. org/10.1007/s11049-016-9355-7

Comrie, Bernard. 1985. Tense. Cambridge University Press. DOI: https://doi.org/10.1017/CBO9781139165815

Copley, Bridget. 2005. When the actual world isn't inertial: Tohono O'odham *cem*. In Becker, Michael & McKenzie, Andrew (eds.), *Proceedings of SULA 3: Semantics of Underrepresented Languages in the Americas* (University of Massachusetts Occasional Papers 33), 1–18. Amherst, MA: GLSA.

Davis, Henry & Matthewson, Lisa. 2022. St'át'imcets frustratives as not-at-issue modals. *Linguistics* 60(5). 1337–1397. DOI: https://doi.org/10.1515/ling-2020-0211

De Mulder, Walter. 2004. Can there be a nontemporal definition of the French imparfait? A "network" approach. In Brisard, Frank & D'hondt, Sigurd & Mortelmans, Tanja (eds.), *Language and revolution / Language and time*, 195–122. (Antwerp papers in linguistics 106). Universiteit Antwerpen.

de Swart, Henriette. 1998. Aspect shift and coercion. *Natural Language and Linguistic Theory* 16. 347–385. DOI: https://doi.org/10.1023/A:1005916004600

Dowty, David. 1979. *Word meaning and Montague Grammar*. Dordrecht: Reidel. DOI: https://doi. org/10.1007/978-94-009-9473-7

Hale, Ken. 1969. Papago /čim/. International Journal of American Linguistics 35. 203–212. DOI: https://doi.org/10.1086/465055

Horn, Laurence R. 1972. On the semantic properties of logical operators in English. Ph.D. dissertation, University of California, Los Angeles.

Kratzer, Angelika. 1981. The notional category of modality. In Eikmeyer, Hans & Rieser, Hannes (eds.), *Words, worlds, and contexts: New approaches in word semantics*, 38–74. Berlin: Mouton de Gruyter. DOI: https://doi.org/10.1515/9783110842524-004

Kratzer, Angelika. 1991. Modality. In von Stechow, Arnim & Wunderlich, Dieter (eds.), *Semantics: An International Handbook of Contemporary Research*, 639–650. Berlin: Mouton de Gruyter. DOI: https://doi.org/10.1515/9783110126969.7.639

Kroeger, Paul. 1991. The event line in Kimaragang narrative. In Levinsohn, Stephen (ed.), *Thematic continuity and development in languages of Sabah*, 93–104. Pacific Linguistics C118.

Kroeger, Paul. 2005. Kimaragang. In Adelaar, Sander & Himmelmann, Nikolaus (eds.), *The Austronesian languages of Asia and Madagascar*, 397–428. London & New York: Routledge.

Kroeger, Paul. 2017. Frustration, culmination and inertia in Kimaragang grammar. *Glossa: A Journal of General Linguistics* 2(1). 56. 1–29. DOI: https://doi.org/10.5334/gjgl.146

Kroeger, Paul. 2021 ms. Focus-aspect polysemy in Kimaragang. Handout for talk presented (via Zoom) at the Austronesian Formal Linguistics Association, May 2021.

Kroeger, Paul & Johansson, James. 2013. *Tri-Lingual Phrase Book*, revised edition. https://www.kimaragang.net/files/uploads/Phrase%20Book%202013.pdf. (First edition: 1987, United Sabah Dusun Association)

Kuteva, Tania. 1998. On identifying an evasive gram: Action narrowly averted. *Studies in Language* 22(1). 113–160. DOI: https://doi.org/10.1075/sl.22.1.05kut

Kuteva, Tania. 2000. TAM-auxiliation and the avertive category in Northeast Europe. In Fernandez-Vest, Jocelyne (ed.), *Areal grammaticalization*. Louvain-Paris: Peeters.

Moens, Marc & Steedman, Mark. 1988. Temporal ontology and temporal reference. *Computational Linguistics* 14(2). 15–28.

Olsson, Bruno. 2013. Iamitives: Perfects in Southeast Asia and beyond. Stockholm: Stockholm University M.A. Thesis.

Overall, Simon. 2017. A typology of frustrative marking in Amazonian languages. In *The Cambridge Handbook of Linguistic Typology*, 477–512. Cambridge: Cambridge University Press. DOI: https://doi.org/10.1017/9781316135716.015

Patard, Adeline. (in press). A counterfactual cycle: Evidence from the French imperfect. In De Wit, Astrid & Brisard, Frank & Madden-Lombardi, Carol & Meeuwis, Michael & Patard, Adeline

(eds.), Beyond aspectual semantics: Explorations in the pragmatic and cognitive functions of aspect. Oxford University Press. [hal-04138669]

Plungian, Vladimir A. & van der Auwera, Johan. 2006. Towards a typology of discontinuous past marking. *Language Typology and Universals* 59(4). 317–349. DOI: https://doi.org/10.1524/stuf.2006.59.4.317

Sadock, Jerry. 1978. On testing for conversational implicature. In Cole, Peter (ed.), *Syntax and Semantics Volume 9: Pragmatics*, 281–297. Academic Press, New York. DOI: https://doi.org/10.1163/9789004368873_011

Soh, Hooi Ling. 2009. Speaker presupposition and Mandarin Chinese sentence final *–le*: A unified analysis of the "change of state" and the "contrary to expectation" reading. *Natural Language and Linguistic Theory* 27. 623–657. DOI: https://doi.org/10.1007/s11049-009-9074-4

Soh, Hooi Ling & Gao, Meijia. 2006. Perfective aspect and transition in Mandarin Chinese: An analysis of double *–le* sentences. In Denis, Pascal & McCready, Eric & Palmer, Alexis & Reese, Brian (eds.), *Proceedings of 2004 Texas Linguistics Society Conference: Issues at the semantics-pragmatics interface*, 107–122. Somerville: Cascadilla Press.

von Fintel, Kai. 2006. Modality and language. In Borchert, Donald M. (ed.), *Encyclopedia of philosophy*, 2nd edn., vol. 10, 20–27. Detroit: MacMillan Reference USA.